



---

## CONTENT

---

<b>Event At a Glance Programme .....</b>	<b>01</b>
<b>Event Programme Schedule .....</b>	<b>02</b>
<b>Speakers Profile &amp; Abstracts .....</b>	<b>11</b>
<b>Highlight Lecture .....</b>	<b>12</b>
<b>New Developments in Functional Foods for enhanced Nutrition .....</b>	<b>14</b>
<b>Life ..... supplemented. The effective use of Dietary Supplements .....</b>	<b>19</b>
<b>Bridging Traditional Knowledge &amp; Modern Nutraceuticals .....</b>	<b>24</b>
<b>Morning Mantra .....</b>	<b>29</b>
<b>EU / India Interactive Scientific Sessions: I-V .....</b>	<b>32</b>
<b>CEO Summit .....</b>	<b>45</b>
<b>Nutraceuticals in Disease prevention &amp; treatment &amp; aftercare .....</b>	<b>46</b>
<b>Doctors &amp; Nutritionists Forum : Nutraceuticals &amp; Lifestyle Management .....</b>	<b>55</b>
<b>Claims , Labelling &amp; Policy Issues .....</b>	<b>56</b>
<b>Poster Abstracts .....</b>	<b>59</b>
<b>Exhibitors Directory .....</b>	<b>73</b>
<b>Notes .....</b>	<b>95</b>



February 21-23, 2008 • World Trade Centre, Mumbai

## Event At a Glance Programme

Day - 1	Day - 2	Day - 3
Thursday, 21st February 2008	Friday, 22nd February 2008	Saturday, 23rd February 2008
10.00am - 11.00am Inaugural Programme	10.00am - 11.00am Morning Mantra	10.00am - 11.45am Nutraceuticals in Disease prevention & treatment & aftercare
11.00am - 12.00pm Exhibition Visit & Tea Break		
12.00pm - 12.30pm Highlight Lecture	11.00am - 11.30am Tea Break	11.45am - 12.15pm Tea Break
12.30pm - 01.45pm New Developments in Functional Foods for enhanced Nutrition	11.30am European Union - India Day	12.15pm - 01.30pm Doctors & Nutritionists Forum : Nutraceuticals & Lifestyle Management
01.45pm - 02.45pm Lunch	01.00pm - 02.30pm Interaction at Nu Fundas Expo & Lunch	01.30pm - 02.30pm Lunch
02.45pm - 4.00pm Life ..... supplemented. The effective use of Dietary Supplements	02.30pm - 04.00pm EU/India Interactive Scientific Sessions I - V	02.30pm - 04.00pm Claims , Labelling & Policy Issues
04.00pm - 04.30pm Tea Break	04.00pm - 04.30pm Tea Break	04.00pm - 04.30pm Valedictory Session Followed by Closing Reception
04.30pm - 06.00pm Bridging Traditional Knowledge & Modern Nutraceuticals	04.30pm - 06.30pm EU/India Interactive Scientific Sessions Contd.	
	07.00pm Onwards CEO Summit at Hotel Taj President	



## PROGRAMME SCHEDULE

### 4TH NUTRACEUTICAL SUMMIT

February 21-23, 2008, World Trade Centre, Mumbai

#### Day -1: February 21, 2008 - Thursday

#### INAUGURAL PROGRAMME

10.00 am - 11.00 am

- Dignitaries** :
- H.E. Shri S. M. Krishna**  
Governor of Maharashtra
  
  - Dr. V. Prakash**  
Director, CFTRI, Mysore, India
  
  - Shri Dhanraj Khamatkar**  
FDA- Commissioner, Maharashtra
  
  - Antonio Di Giulio**  
European Commission, Directorate General for Research  
Head of Unit "Food, Health & Well Being"
  
  - Mr. T.C.Venkat Subramanian**  
CMD, Exim Bank
  
  - Mr. Jagdish Patankar**  
Organising Secretary, 4th Nutraceutical Summit and Director, MM Activ

#### Exhibition Visit and Tea Break

11.00 am - 12.00 pm

#### HIGHLIGHT LECTURE

12.00 pm - 12.30 pm

- Chair** :
- Dr. Sanjeev K. Chaudhry**  
Management Consultant
- Speaker** :
- Dr. Lekh Juneja**  
Representative Director  
Executive Vice President, Taiyo Kagaku Co. Ltd.  
**Title:** Bringing Innovations to Market: An International Perspective

## NEW DEVELOPMENTS IN FUNCTIONAL FOODS FOR ENHANCED NUTRITION

12.30 pm - 01.45 pm

Brought to you by Nestle Nutrition

**Chair** : **Dr. Sanjeev K. Chaudhry**  
Management Consultant

**Speaker** : **Mr. Sandip Dang**  
CEO, Avesta Good Earth Foods  
**Topic:** The Potential of Traditional Indian Herbs & Plants in Functional Foods

**Dr. Vilas Shirhatti**  
Chief -Technology, Marico Limited  
**Topic:** New Developments in Functional Foods and Dietary supplements

**Mr. Jayesh Chaudhary**  
Founder & MD, Vedic Lifesciences Pvt Ltd  
**Topic:** Nutraceutical R&D - Some Business Dynamics

**Mr. Ram Nimmagudda**  
Director of New Business Development for Personalized Nutrition  
DSM Innovations Inc USA  
**Topic:** Novel ingredients at Marketplace

### Lunch Break

01.45 pm - 02.45 pm

## LIFE ...SUPPLEMENTED. THE EFFECTIVE USE OF DIETARY SUPPLEMENTS

02.45 pm - 04.00 pm

**Chair** : **Mr. Arvind Junagade**  
Senior Vice President - Technical, Amway India Enterprises Pvt. Ltd

**Speakers** : **Dr. Siva P. Hari, Ph.D**  
President & CEO, Jarrow Industries, Inc.  
**Topic:** Dietary Supplements: Opportunities and Challenges in American and Indian markets

**Dr. Kim Krumhar**  
VP, Research and Development Centre, Herbalife International  
**Topic:** The Herbalife Diet: Personalized Nutrition for Health.

**Mr. Akkshay G. Mehta**  
Managing Director, Mission Vivacare Limited  
**Topic:** Dietary Supplements : India's Potential In the Global Markets.

**Mr. Hideo Saito**  
Pharmacist, President, Toyo Science Corp  
**Topic:** Ingredients for Health and Beauty in Japan.

### Tea Break

04.00 pm - 04.30 pm

# BRIDGING TRADITIONAL KNOWLEDGE & MODERN NUTRACEUTICALS

04.30 pm - 06.00 pm

**Chair** : **Mr. B.S Sajwan**  
CEO, National Medicinal Plant Board

**Co Chair** : **Mr. Ranjít Puranik**  
Chief Executive Officer, Shree Dhootapapaeshwar Limited

**Speakers** : **Dr. Shrinivasan**  
Head of Herbal Division, Natural Remedies  
**Topic:** Opportunity Nutra

**Dr. N.S. Bhatt**  
Consultant, Ayurvedic Research Industry

**Dr. Ranjan Mogre**  
Director, Natext Biotech Pvt. Ltd  
**Topic:** High Strength Herbal Ingredients in Nutraceutical Products.

**Dr. K. R. Kohli**  
Director-Ayurveda Research, Dabur Research Foundation  
**Topic:** Nutraceuticals in Ayurveda 'Then & Now'



## PROGRAMME SCHEDULE

### 4TH NUTRACEUTICAL SUMMIT

February 21-23, 2008, World Trade Centre, Mumbai

#### Day -2: February 22, 2008 - Friday

##### MORNING MANTRA

10.00 am - 11.00 am

**Speakers** : **Mr. Jon Benninger**  
Business Development Director, Virgo Publishing LLC, Supply Side Show  
**Topic:** Succeeding in the US market for healthy and natural products

**Mr. R.M.V. Raman**  
Special Advisor to Chairman & Managing Director, Exim Bank  
**Topic:** Healthcare Tourism: Opportunities for India

##### Tea Break

11.00 am - 11.30 am

##### EUROPEAN UNION - INDIA DAY

11.30 am

##### Opening Talks

**Speakers** : **Dr. V. Prakash**  
Director, CFTRI, Mysore, India

**Antonio Di Giulio**  
European Commission, Directorate General for Research  
Head of Unit "Food, Health & Well Being"

##### 1 - Farm to Nutraceutical - Wellbeing

**Dirk Pottier**  
Scientific Officer, Food Health & Well Being  
Directorate of Biotechnologies, Food & Agriculture, DG Research

**Elisabetta Balzi**  
International Co-operation Officer  
Horizontal and Co-ordination Aspects  
Directorate of Biotechnologies, Food & Agriculture, DG Research

##### INTERACTION AT NU FUNDAS EXPO & LUNCH

01.00 pm - 02.30 pm

## EUROPEAN UNION - INDIA DAY

02.30 pm - 06.30 pm

### II - Food Platform / Probiotics

**Dr. Andras Sebök:**

from the European Technology platform - ETP Food for Life

**María Saarela** (FI) –Probiotics - – a technology, food processing oriented cluster of health promoting research projects. Probiotics (Fp5) is considered to be a real success story.

**Dr. M. C. Varadraj**

Scientist, Head, HRD Department, CFTRI, Mysore, India

**Topic:** Concept of Prebiotics and Probiotics in Indian Scenario

### III – Roles Of Nutraceuticals In Preventive Application On Obesity

**Wim Saris** (NL) -Diogenes - Diogenes is a pan-European Programme targeting the obesity problem from a dietary perspective, seeking new insights and new routes to prevention. The project addresses and stands for diets, obesity and genes.

**Dr. Jamuna Prakash**

Reader, Dept of Studies in Food Science and Nutrition

University of Mysore, India

**Topic :** Food Matrix And Bioavailability Of Nutrients and Nutraceuticals.

**Dr. Nitin Patankar**

Anti Obesity Physician and Consultant Nutrition and Prevention of Disease

**Topic:** Managing Obesity with Nutrition Indian Perspective

### IV - Genes And Nutrition

**Piero Dolara** (IT) -Nutrition genomics (NUGO) ) - a network of excellence aiming at creating a virtual centre for developing, integrating and applying genomic technologies for the benefit of European consumer and training of European scientists to use post-genomic technologies in nutrition research.

### V - Preventive Aspects Of Disease With Nutraceuticals

**Tobias Hartmann** (DE) -Lipididiet - a new FP7 project aiming at developing lipid based diets for preventing or slowing down the development of Alzheimer disease.

**Dr. Mahesh Rao**

Associate Professor, JSS Medical College, Mysore

**Topic:** Epidemiology of Food Allergy in India – Results from Europrevall

## CEO SUMMIT

07.00 pm onwards at Taj President

**Chair** : **Dr. V. Prakash**  
Director, CFTRI, Mysore, India

### **Distinguished Panelists**

**Mr. Ajit Singh**  
Chairman, ACG Worldwide

**Mr. Shekhar Sethu**  
Managing Director, Herbalife International India Ltd

**Mr. Sanjaya Mariwala**  
Managing Director, Kancor Ingredients Ltd

**Dr. Leonard Scott**  
Managing Director, DSM Nutritional Products India Pvt. Ltd.

**Dr. Ashish Bhoje**  
Vice President – R & D, Godrej Hershey Ltd



## PROGRAMME SCHEDULE

### 4TH NUTRACEUTICAL SUMMIT

February 21-23, 2008, World Trade Centre, Mumbai

• Day - 3: February 23, 2008 - Saturday •

#### NUTRACEUTICALS IN DISEASE PREVENTION, TREATMENT & AFTERCARE 10.00 am - 11.45 am

- Chair** : **Dr. Ashok Vaidya**  
Research Director, Kasturba Health Society
- Co Chair** : **Dr. G. A. Krishna**  
Head Planning, Monitoring & Coordination Department, CFTRI, Mysore, India
- Speakers** : **Dr. Anoop Misra**  
Director & Head, Deptt. of Diabetes and Metabolism, Fortis Group of Hospitals  
**Topic:** Syndrome X and Hyperglycemia: Any role of Nutraceuticals
- Mr. Jagdev Singh**  
President, Malaysian Dietary Supplement Association  
**Topic:** The role of Omega 3 Fatty Acids in Coronary Artery Disease.
- Dr. Y.B. Tripathi**  
Professor, Banaras Hindu University  
**Topic:** BHUx: An evidence based polyherbal for atherosclerosis and osteoporosis"
- Dr. Jayant Deshpande**  
Vice President, OmniActive Health Technologies Pvt Ltd  
**Topic:** Co-Existence of Pharmaceuticals and Nutraceuticals for the Prevention / treatment of Disease.
- Mr. Rajendra Deolankar**  
Head Quality Management, National Institute of Virology  
**Topic:** Disease Informatics: ICD-11 at the doorstep
- Dr. Sharad Kasarle**  
Vice President – Nutraceuticals & Health Foods, Alkem Laboratories Ltd  
**Topic:** New Developments in Nutraceuticals in Disease Prevention

#### Tea Break

11.45 am - 12.15 pm

## DOCTORS & NUTRITIONISTS FORUM: NUTRACEUTICALS & LIFESTYLE MANAGEMENT

12.15 pm - 01.30 pm

Brought to you by Avethagen Ltd

**Chair** : **Dr. R. K. Sanghavi**  
Medical Advisor, Consultant-Pharma MedicoMarketing

**Panelists** : **Dr. Sharad Kasarle**  
Vice President - R&D Nutraceuticals, Alkem Laboratories Ltd

**Mr. Jagdev Singh**  
President, Malaysian Dietary Supplement Association

**Dr. Salome Benjamin**  
Chief Dietician, Nair Hospital

**Ms. Gourpriya K. Koppikar**  
Chief Dietician, Bombay Hospital Trust

**Dr. Jyoti D. Vora**  
Head, Department of Biochemistry and Food Science and Quality Control  
Ramnarain Ruia College

### Lunch Break

01.30 pm - 02.30 pm

## CLAIMS, LABELLING & POLICY ISSUES

02.30 pm - 04.00 pm

**Chair** : **Mr. Kamlesh Parwani**  
Dy. General Manager, Personal Care, Food & Household ( South Asia )  
Dow Chemicals International Pvt. Ltd.

**Speakers** : **Mrs. Kumud Sampath**  
Vice President - International  
United States Pharmacopeia India Private Limited  
**Topic:** USP's Perspective on Quality & Labelling

**Mr. Suhas Chaudhari**  
Joint Commissioner (Greater Mumbai)  
Food and Drug Administration, Maharashtra State, Mumbai

**Dr. Bhushan Karnik**  
Managing Director, Optimal Nutrients India

**Dr. Deepa Bhajekar**  
CEO, The MicroChem Laboratory  
**Topic:** Nutraceuticals : Labeling & analytical trends

# VALEDICTORY SESSION FOLLOWED BY CLOSING RECEPTION

04.00 pm - 04.30 pm

**Dignitaries** : **Dr. V. Prakash**  
Director, CFTRI, Mysore, India

**Dr. Ashok Vaidya**  
Research Director, Kasturba Health Society

\* \* \*



---

## **SPEAKERS' PROFILE & ABSTRACTS**

---



---

## HIGHLIGHT LECTURE

---

**Chair** : **Dr. Sanjeev K. Chaudhry**  
Management Consultant

**Speaker** : **Dr. Lekh Juneja**  
Representative Director  
Executive Vice President  
Taiyo Kagaku Co. Ltd.

**Topic:** Bringing Innovations To Market: An International Perspective

### **DR. SANJEEV K CHAUDHRY**

#### **Profile of the Chair:**

Dr. Sanjeev K. Chaudhry is a well known management personality in the field of health and nutrition.

He currently serves as Chairman of CSC Nutrigenomics Pte Ltd. Singapore and Chief Executive Officer of SRL Ranbaxy Limited, New Delhi. Dr. Chaudhry serves on the Board of Directors and Advisory Boards of several leading companies in many countries.

He has been on the forefront of creating many new-age foods that have a clear health and nutrition orientation.

**Dr. Sanjeev K. Chaudhry**  
E-mail : [chaudhry.sanjeev@gmail.com](mailto:chaudhry.sanjeev@gmail.com)



---

## DR. LEKH JUNEJA

---

**Title of the Presentation:** Bringing Innovations To Market: An International Perspective

**Abstract of the Presentation:**

Increased consumer awareness over recent years between food and health has begun to appear in the market and reflect as a tremendous growth in the market size. There is a considerable debate as what makes a food functional. Our excogitative research on science, technology and marketing strategy in the area of functional foods has enabled us to launch various innovative products, which led us receiving a series of international awards. It is just not a science but needs many factors such as taste, stability, safety, bioavailability, religion, regulations, and cost concept etc. of the products to make science innovations successful in the market. Many examples like Sunphenon<sup>®</sup>, Suntheanine<sup>®</sup>, Sunfiber<sup>®</sup>, SunActive<sup>®</sup>, and Nutrition Delivery Systems will be highlighted.

**Profile of the Speaker:**

Dr. Lekh Juneja is an Executive Vice President of Taiyo Kagaku Co., Ltd, Japan. He is also CEO of Taiyo Lucid Pvt. Ltd., India and Taiyo Green Power Co., Ltd, China. He did his Ph D from Nagoya University, Japan. He is internationally acclaimed for developing various nutraceuticals and functional foods and has authored over 200 research papers, reviews and has more than 100 Japanese and international patents. He has edited books on The Chemistry and Applications of Green Tea and Hen Eggs: Their Basic and Applied Science by CRC Press, (USA), 1996. Dr Juneja is recipient of many awards including IFT Industrial Achievement Award, Food Ingredient Research Awards at FIE Europe and Nutracon Awards for the Best New Products of the Year, US. He sits on the Board of Advanced Foods and Materials Network (AFMnet), Canada, CRC Press Editors Board, New York and Japanese Society of Tea Catechinology. Dr Juneja is Vice President of International Tea Science Society and Fellow & Vice President of International College of Nutrition. He is affiliated to several international societies including New York Academy of Science, American Association for the Advancement of Science, AOCS, and IFT, Society for Bioscience Biotechnology and Agrochemistry. He has given many invited lectures including Chappel Memorial Lecture at the University of Guelph, Canada. His research area includes Functional Ingredients from Egg, and Green Tea, Water Soluble Dietary Fiber, Nanoscience and its application in Nutritional Delivery System of Mineral, Vitamin and Polyunsaturated Fatty Acids and Nanoporous Materials.

**Dr. Lekh Juneja**  
juneja@taiyokagaku.co.jp



---

## NEW DEVELOPMENTS IN FUNCTIONAL FOODS FOR ENHANCED NUTRITION

---

Brought to you by Nestle Nutrition

**Chair** : **Dr. Sanjeev K. Chaudhry**  
Management Consultant

**Speaker** : **Mr. Sandip Dang**  
CEO, Avesta Good Earth Foods

**Topic:** The Potential of Traditional Indian Herbs & Plants in Functional Foods

**Dr. Vilas Shirhatti**  
Chief -Technology, Marico Limited

**Topic:** New Developments in Functional Foods and Dietary supplements

**Mr. Jayesh Chaudhary**  
Founder & MD, Vedic Lifesciences Pvt Ltd

**Topic:** Nutraceutical R&D - Some Business Dynamics

**Mr. Ram Nimmagudda**  
Director of New Business Development for Personalized Nutrition  
DSM Innovations Inc USA

**Topic:** Novel ingredients at Marketplace



---

## MR. SANDIP DANG

---

**Title of the Presentation:** The Potential of Traditional Indian Herbs & Plants in Functional Foods

**Abstract of the Presentation:**

Traditional Indian Medicine has been known to play an important part in a healthy Diet and healthy living. There exists significant potential in unlocking the value of Traditional Indian Medicine such as Ayurveda by scientifically validating the “bioactive” components of these traditional plants as a means to treat de-generative health disorders such as Diabetes, Obesity and Bone Health.

At Avesthagen, we are concerned with finding ways to realize this potential for the benefit of those affected by these chronic health conditions.

**Profile of the Speaker:**

Mr. Sandip Dang has been working in Avesthagen from March 2006 onwards. He has over 20 years working experience in diverse sectors ranging from

FMCG (Cadburys & Britannia Company),  
Telecom (RPG Cellular Services Ltd),  
Food Service Retail (Barista Coffee Company & Fresh & Honest Cafe Ltd) and  
Media & Entertainment (The India Today Group, Saregama India Ltd)

As an alumnus of IIM Kolkata 1986, he has worked in Sales & Marketing across industries; more recently he held the COO role at Barista Coffee Company & Fresh & Honest Cafe Ltd, prior to joining Avesthagen.

**Mr. Sandip Dang**  
Email: sandip@avesthagen.com



---

## DR. VILAS SHIRHATTI

---

**Title of the Presentation:** New Developments in Functional Foods and Dietary supplements

**Abstract of the Presentation:**

Functional foods and dietary supplements are an important part of an overall healthful lifestyle that includes a balanced diet and physical activity. Credible scientific research indicates there are many clinically demonstrated and potential health benefits from food components. These benefits continue to expand the health claims now permitted to be identified by the Food and Drug Administrations in different parts of the world. Biologically active components in functional foods may impart health benefits or desirable physiological effects. Functional attributes of many traditional foods and new phytochemicals isolated particularly from plant sources are now being discovered, processes established to make them commercially available, while new food products are being developed with these beneficial components. Rapid advances in science and technology, increasing healthcare costs, increasing number of consumers developing life style related diseases, changes in food laws affecting label and product claims, a more informed consumer, an aging population, and rising interest in attaining wellness through diet are among the factors fueling the interest in functional foods and dietary supplements.

The presentation attempts to cover the latest developments in functional foods and dietary supplements. The list of new phytochemicals available for food formulators, the new approaches to formulations, the scientific ways of establishing the benefits of such products and communication of such benefits to consumers will also be discussed and illustrated with some commercially available products.

**Profile of the Speaker:**

Current Position : Chief–Technology, Marico Limited, Mumbai, India  
Education : M.Sc. Analytical Chemistry  
Ph.D Chemistry, National Chemical Laboratory, Pune  
Experience : 10 years of Academic research in the area of Physical Organic, Synthetic Chemistry, Biochemical toxicology at NCL, Pune, John Hopkin University & National Institution of Health , USA  
25 years of Industrial Research experience in companies like Hindustan Lever, Colgate Palmolive, GE and Godrej.  
Areas of Interest : Oils and Fats , Cosmetic technology, Food & Nutrition, toxicology and clinical research.  
Publication : 25 publications in International Journals and several presentations in International and National conferences.  
Teaching : 1) Kane Memorial visiting Professor at UICT for the year 2005-06  
Ph.D course work at Hindustan Lever Research Foundation  
John Hopkins University, USA  
Center for Advanced Cell and Molecular Biology, Catholic University, Washington DC, USA  
Foundation for Advanced Education in Science (FAES), NIH, USA  
GE Six Sigma School.

**Dr. Vilas Shirhatti**  
Email: vilass@maricoindia.net



---

## MR. JAYESH CHAUDHARY

---

**Title of the Presentation:** Nutraceutical R&D - Some Business Dynamics

**Abstract of the Presentation:**

The rules of the Nutraceutical Research game differ from Pharma R&D. Most of the nutraceutical R&D spending worldwide is driven by marketing goals and not by regulations. We will discuss whether R&D is a good investment in the herbal supplements business and the possible approaches to minimize risks and maximize returns. Industry, Trade and Consumer perceptions of the science behind food supplements will be analyzed. Research studies designed and conducted without expert help often lead nowhere. R&D Quality, outsourcing and off-shoring and their impact on regulatory and marketing functions will be discussed.

**Profile of the Speaker:**

Jayesh Chaudhary has been involved in herbal products research and international business since 1994. Founder & MD of Vedic Lifesciences Pvt Ltd, Mr. Chaudhary has the experience of regulatory affairs, research and IPR planning for nutraceutical and phytopharmaceutical actives and formulations for the EU and US markets. He has led teams who have successfully faced several international audits for compliance to quality systems like ISO 9001:2000, Good Clinical Practices (ICH-GCP) and other applicable guidelines. Founded in 2000, his company is a global leader in natural products contract research with the largest number of clinical and preclinical studies managed.

Trained in Pharmacy and Microbial Engineering, Mr. Chaudhary was responsible for the Biocatalyst, Biochemicals and Natural Products technical support and national sales at Boehringer Mannheim India in the early '90s. Subsequently, he was instrumental in the setting up and market development of a range of herbal ingredients for human and agricultural enduse in several semi-regulated markets.

**Mr Jayesh Chaudhary**  
Email: [jayesh@ayuherbal.com](mailto:jayesh@ayuherbal.com)



---

## MR. RAM NIMMAGUDDA

---

**Title of the Presentation:** Novel ingredients at Marketplace

**Abstract of the Presentation:**

An overview of consumer perception and action towards functional food awareness and usage intent. DSM innovation focus and platforms towards health and wellness and metabolic syndrome with brief introduction to the portfolio.

**Profile of the Speaker:**

Business development director of DSM emerging business area of personalized nutrition. More than a decade of experience in food ingredient companies in different positions.

Familiar with nutraceutical and functional food markets and products around the world.

**Mr. Ram Nimmagudda**  
Email: [ram.nimmagudda@dsm.com](mailto:ram.nimmagudda@dsm.com)



---

## LIFE ...SUPPLEMENTED. THE EFFECTIVE USE OF DIETARY SUPPLEMENTS

---

**Chair** : **Mr. Arvind Junagade**  
Senior Vice President - Technical, Amway India Enterprises Pvt. Ltd

**Speakers** : **Dr. Siva P. Hari, Ph.D**  
President & CEO, Jarrow Industries, Inc.

**Topic:** Dietary Supplements: Opportunities and Challenges in American and Indian markets

**Dr. Kim Krumhar**  
VP, Research and Development Centre, Herbalife International

**Topic:** The Herbalife Diet: Personalized Nutrition for Health.

**Mr. Akkshay G. Mehta**  
Managing Director, Mission Vivacare Limited

**Topic:** Dietary Supplements : India's Potential In the Global Markets.

**Mr. Hideo Saito**  
Pharmacist, President, Toyo Science Corp

**Topic:** Ingredients for Health and Beauty in Japan.

### MR. ARVIND JUNAGADE

**Profile of the Chair:**

Arvind Junagade is post graduate in pharmaceutical chemistry from Nagpur University with Diploma in Management Studies from Jamnalal Bajaj Institute, Bombay University. He has worked with leading pharmaceutical companies such as Roussel, Nicholas and Ranbaxy for almost two decades in R & D, Quality Assurance and Manufacturing, in India and abroad. He has presented papers and talks in several national and international conference in the areas of pharmaceuticals and recently, nutraceuticals. He is life member of Indian Pharmaceutical Association and also member of Cosmetics, Toiletries and Fragrance Association (CFTA). For almost a decade, he is closely associated with nutraceuticals and is founder member and Secretary (CFTA). For almost a decade, he is closely associated with nutraceuticals and is founder member and Secretary of Health Foods and Dietary Supplements Association (HADSA), which is affiliated to International Alliance of Dietary Supplement Associations (HADSA), headquarter in Brussels. Currently, Senior Vice President - Technical with Amway India Enterprises Pvt. Ltd.

**Mr. Arvind Junagade**  
Email: Arvind\_Junagade@amway.com



---

## DR. SIVA P. HARI

---

**Title of the Presentation:** Dietary Supplements: Opportunities and Challenges in American and Indian markets.

**Abstract of the Presentation:**

This presentation from a U.S. contract manufacturer will outline the definitions, the latest market landscape and regulations for dietary supplements in the U.S. Opportunities and challenges facing Indian and American firms to grow in these two markets will be discussed. A comparative survey of pharmaceutical and nutraceutical trends will be presented along with insights into smart strategies for sustained growth in supplements business.

**Profile of the Speaker:**

B.S. (Biology) University of Oregon, Eugene, Oregon  
M.S. (Neurobiology) University of Oregon, Eugene, Oregon  
M.S. (Chemistry) University of California, Riverside, California  
Ph.D. (Analytical Chemistry) University of California, Riverside, California  
Allergan (Eye-care) Pharmaceuticals, Irvine, CA, R&D  
Soft Gel Technologies, Los Angeles, CA, Technical Services Manger  
Jarrow Industries, Inc., Santa Fe Springs, CA, President & CEO

I have been working in the Vitamin and Nutritional Supplement industry for the past ten years and built Jarrow Industries, Inc., from ground up.

Jarrow Industries, Inc., is a contract manufacturer and packager of Vitamins and Nutritional Supplements since April 2002. You can tour our facility virtually at [www.jiimfg.com](http://www.jiimfg.com). We are NSF GMP compliant facility and specialize in probiotics, specialty tablets (chewable, effervescent, bilayer and sustained release tablets) hard gelatin capsules and powders. We package these dosage forms in bottles, blister cards and pouches. We manufacture over 300 products for our sister company's brand, Jarrow Formulas, Inc. as well other private label customers. You can visit Jarrow Formulas at [www.jarrow.com](http://www.jarrow.com).

**Dr. Siva P. Hari**  
E mail: [siva@jiimfg.com](mailto:siva@jiimfg.com)



---

## DR. KIM C. KRUMHAR

---

**Title of the Presentation:** The Herbalife Diet: Personalized Nutrition For Health

**Abstract of the Presentation:**

Modern lifestyles have altered the compositions of the foods we eat, the amounts we eat, and the ways we consume them. Foods have been made more palatable and more convenient, and the diets of increasing numbers of sedentary people are no longer offset by physical activity. The result has been an alarming rise in obesity among the populations of developed nations, together with its accompanying health problems like diabetes, metabolic syndrome, heart disease and osteoarthritis. Early signs point to extension of this trend into other counties and regions that are on the fast-track to full development. India is no exception. With over 1 billion people and a growing economy, India has the potential to have one of largest obesity problems in the world in the next 20 years. Clinical research has demonstrated the efficacy of controlled calories meal plans in clinical use for greater than 5 years, and Herbalife has developed its own protein enriched 1200-1500 kcal meal program strategy using 1-2 shakes a day together with sensible meals and snacks to address the metabolic issues around obesity and help people lose 10-12% of body weight safely and comfortably, with improved metabolic endpoints, body composition and meal satisfaction compared to conventional low calorie diet and meal plans, but with less susceptibility to weight regain as long as protein intake is maintained over time.

**Profile of the Speaker:**

Dr. Krumhar heads product innovation and new product design in his role as Vice President of Product and Process Development at Herbalife. He has had over two decades of experience in nutrition-related product development, including his work with the Nestle Research and Development Center, where he worked with popular brands including Carnation Instant Breakfast and Stouffer Lean Cuisine before coming to Herbalife.

Dr. Krumhar is a Certified Nutrition Specialist and author of multiple articles, a past reviewer for Physiology and Behavior, and the USDA Human Nutrition Research Center (HNRC). He is a member of the American Society for Nutrition, the Institute of Food Technologists and Sigma Xi.

Dr. Krumhar holds a Ph.D. in Nutritional Sciences, University of Arizona, Tucson, 1985; a M.S. in Food Science/Technology, Arizona State University, Tempe, 1982; a B.S. in Biological Sciences, University of Arizona, Tucson, 1978; and a B.A. in Anthropology, University of Arizona, Tucson, 1974.

**Dr. Kim C. Krumhar**  
E mail: [KimK@herbalife.com](mailto:KimK@herbalife.com)



---

## MR. AKKSHAY G. MEHTA

---

**Title of the Presentation:** Dietary Supplements: India's Potential In The Global Markets

**Abstract of the Presentation:**

The presentation will discuss:

1. Overview of Dietary Supplements
2. Global Market Size, Growth and Potential
3. Global Trends and possible market strategies
4. India's heritage in medicine
5. Current position in India
6. India's potential in the Global Markets

**Profile of the Speaker:**

Mr. Akkshay G. Mehta is the Managing Director of Mumbai based Mission Vivacare Limited. Mission is a 100% export oriented firm with a portfolio of nutraceutical products, under the 'Vivaprime' brand, and pharmaceutical products.

Mr. Mehta is a Chartered Accountant and has done his MBA from IIM-Ahmedabad. He started Mission in 1992 and has been leading the organisation for the last 16 years.

Mr. Mehta's business exigency has not held him back from social activities. He is actively involved with the Rotary club and takes on as President of Rotary Club of Mumbai Queens Necklace this year.

**Mr. Akkshay G. Mehta**  
Email: [agm@missionvivacare.com](mailto:agm@missionvivacare.com)



---

## MR. HIDEO SAITO

---

**Title of the Presentation:** Japanese Oral Ingredients for Health and Beauty

**Abstract of the Presentation:**

Japanese functional ingredients for health benefits are rapidly diversified into beauty benefits such as for moisturizing, anti-wrinkle, whitening, elasticizing, as well as for sliming. In addition, Japan starts a new health check system from April, 2008, which force more than 40's elder persons to check their waist size and BMI (called "metabolic syndrome check system"). TOYO SCIENCE introduces new oral ingredients for health and beauty with enough scientific evidences including human clinical studies, which normally satisfy consumers within one month trial.

**Profile of the Speaker:**

Pharmasist, President of TOYO SCIENCE CORP.

- Graduated from Tokyo University of Pharmaceutical and Lifescience in 1983
- Worked for Japanese trading firm, named Nomura Trading, a group of Nomura Security and in charge for pharmaceuticals, foods, cosmetics, animal health, fine chemicals from 1983 to 1987 including as representative in Iran and Indonesia
- Joined a establishment of new trading firm and in charge for pharmaceuticals, foods, cosmetics, animal health, fine chemicals from 1987 to 1995 including as a representative in Indonesia
- Established TOYO SCIENCE CORP. as a new trading firm in 1995 to specialize in more scientific materials for pharmaceuticals, foods, cosmetics, animal health, fine chemicals
- Started contract reserch organization with cooperation with French company, named DermScan Group from 2004 and reserched for phamaceuticals, cosmetics, health foods, etc. in vitro, in vivo and ex vivo.

**Mr. Hideo Saito**

Email: [saito-toyo@toyo-asia.co.jp](mailto:saito-toyo@toyo-asia.co.jp)



---

## BRIDGING TRADITIONAL KNOWLEDGE & MODERN NUTRACEUTICALS

---

**Chair** : **Mr. B.S. Sajwan**  
CEO, National Medicinal Plant Board

**Co Chair** : **Mr. Ranjit Puranik**  
Chief Executive Officer, Shree Dhootapapaeshwar Limited

**Speakers** : **Dr. Shrinivasan**  
Head of Herbal Division, Natural Remedies

**Topic:** Opportunity Nutra

**Dr. N. S. Bhatt**  
Consultant, Ayurvedic Research Industry

**Dr. Ranjan Mogre**  
Director, Natext Biotech Pvt. Ltd

**Topic:** High Strength Herbal Ingredients in Nutraceutical Products.

**Dr. K. R. Kohli**  
Director-Ayurveda Research, Dabur Research Foundation

**Topic:** Nutraceuticals in Ayurveda 'Then & Now'

### **MR. B.S. SAJWAN**

#### **Profile of the Chair:**

Mr. B. S Sajwan, a member of the Indian Forest Service, with about 30 years experience, has been working as the CEO of the National medicinal Plants Board in the department of Ayush, Ministry of Health and family welfare for about 2 and a half years now. He has earlier worked as the Chief Executive of a Central PSU for 5 and a half years. Besides being an alumnus of Indira Gandhi National Forest Academy, Dehradun, Mr Sajwan holds Masters degrees in Resource Management and Rural Social Development respectively from the Universities of Edinburgh and Reading in UK, both of which he topped with distinction. In his present capacity Mr sajwan has taken a number of initiatives to develop medicinal plants sector against heavy odds. A large measure of the credit for upscaling of the outlay from a mere Rs 142 crores during the 10th plan to more than Rs 950 crores proposed during the 11th plan goes to him."

**Mr. B. S. Sajwan**  
Email: [bssajwan@yahoo.com](mailto:bssajwan@yahoo.com)



---

## MR. RANJIT PURANIK

---

### **Profile of the Co Chair: Experience**

- Serve as Executive Director and CEO of Shree Dhootapapeshwar Ltd., an enterprise that is over 135 years in Ayurvedic health care
- Serve as Hon. General Secretary in the Ayurvedic Drug Manufacturers Association
- Represented the Ayurvedic Industry in many forums on issues related to Environment, Forest, Trade Barriers and Regulatory framework
- Member of National Medicinal Plants Board, Government of India – 2004 and again 2007
- Chairman Working Group for Committee established by Government of Maharashtra on issues relating to AYUSH sector and Forest and Wildlife Regulations - 2004
- Member of Steering Committee for Ayurved, Siddha, Unani and Homoeopathy set up by Planning Commission, Government of India for XIth Five Year Plan - 2006
- Member Ayurvedic Pharmacopoeia Committee, Dept. of A.Y.U.S.H., Min. of Health & Family Welfare, Govt. of India – 2006
- Member Ayurvedic Siddha Unani Drug Technical Advisory Board – 2007

**Mr. Ranjit Puranik**  
Email: rap@sdlindia.com



---

## DR. SHRINIVASAN

---

**Title of the Presentation:** Opportunity Nutra

**Abstract of the Presentation:**

Ayurveda has bestowed the gift of wisdom derived from Nature. Current science has given us the tools to accommodate this knowledge for today's need. Even with the latest technology of isolation and purification, the question still persists, are these bio actives doing the desired job when consumed by human beings? What are the challenges and how we need to address.

**Profile of the Speaker:**

Shrinivasan S, is a Post graduate in Pharmacy and Ph D with Advanced Management Diploma and Training in Management.

He was posted in Japan, to work with customers to develop innovative products and marketing concepts using phyto chemicals.

He had responsibilities to develop New Drug Delivery System for Natural Products, Clinical Evaluation of Formulations and Phytochemistry R&D.

Dr. Shrinivasan S has profiled in MAP, DISC and other talent screening. He is found to be a talented General Manager comparable to similar international positions.

Among the strengths identified (Gallup) include - Strategic, Maximizer, Intellection, Ideation and Input.

Shrinivasan has been successful in building the organizations and has developed versatile experience in all round operations of an Organization during his tenure at Smithkline Beecham, Alcon and Sami Labs.

Currently, Dr. Shrinivasan is Head of Herbal Division at Natural Remedies, Bangalore.

Experience of Managing the organization from Manufacturing to Marketing, Development to Distribution, Training to Technical Operations, Assurance to Administration, of a number of Pharmaceutical Formulations (Human and Veterinary), Cosmetics & Food Products.

**Dr. Shrinivasan**

Email: [shrinivasan@naturalremedy.com](mailto:shrinivasan@naturalremedy.com)



---

## DR. RANJAN MOGRE

---

**Title of the Presentation:** High Strength Herbal Ingredients In Nutraceutical Products

**Abstract of the Presentation:**

In the new rapidly changing global scenario and fast realization of the ill effects of uncontrolled food processing and over medications, plants have gained the well-deserved attention. This is clearly evident from the fact that they have come to stand as symbols of a more natural and healthy way of life. A large number of plants have already become commercial successes in the new rapidly emerging “**natural world**” as seen from the unprecedented resurgence of interest in “Herbs and herbal products”.

The herbs as well as the spices as such have very wide range of applications. However, what is most critical in the applications of these herbs and spices-due to the “inconsistency” of raw herb quality- is the isolation of the effective and useful ingredients from the natural raw material in the most “natural” form in order to have the “consistency” in the utilizable applications. The methods used so far have been traditional ones like aqueous extraction, steam/hydro distillations, solvent extractions, etc. These methods do give products wherein a large amount of value addition can be done. New method-called “Super Critical Fluid Extraction **Technology**” has been developed in order to retain the active ingredients in the native form as in the raw materials. This technology utilizes “supercritical carbon dioxide” under high pressure but at almost ambient temperatures and is getting more and more preference for the isolation of “**natural active ingredients**” from herbs and spices. The products obtained by “Super Critical Fluid Extraction Technology” are being widely accepted and command very high price in various industrial areas like food, cosmetic, perfumery, medicinal, nutraceutical and aromatherapy applications! These products represent truly the “**natural and total**” form of extracts in a real concentrated nature!

Various products like spice oils and oleoresins, neem leaf extract, marigold extract, coleus forskolin, cinchona bark extract, gloriosa superba extract, pomegranate seed extract, etc. are getting more and more popular for large number of applications and the demand for more consistent and ingredients free from organic solvents is growing. There is tremendous potential for these high potency ingredients in new generation nutraceuticals or alternative health supplements with specifications to match the demand of newer regulations. **India is a very huge reservoir of many useful and interesting floras and fauna, what we need to understand is the method of utilization of these vast natural resources.**

**Profile of the Speaker:**

**Formal Education:** Graduated from University of Bombay in 1979 with a First Class Bachelor's Degree in Chemistry. **First Class Master's Degree in Organic Chemistry** from University of Bombay in 1981. Undertook research work towards **Ph. D. in Bio-organic Chemistry** from August 1982 at the Department of Chemistry, Indian Institute of Technology, Bombay. The thesis entitled “Diazofluorene based photoactivable reagents” was defended successfully in April 1987.

**Director of Natext Biotech Pvt. Ltd.**, a company involved in value added formulations based on natural ingredients.

**Promoter-Director** of “**Vedic Supercriticals & Biotechnologies (India) Pvt. Ltd.**” a company involved in setting up of lab scale, pilot scale and large capacity super critical extraction unit for extraction of herbs and spices. Developed the first indigenised plant in the area of supercritical fluid technology for the extraction of oils, oleoresins and extracts from spices and herbs.

**Partner, "Applied Biotech"** Mumbai. The company is involved in the process development in the area of Fine chemicals (reagents for nucleotide and peptide synthesis), biotech products (amino acid derivatives) for agro applications, eco-friendly agro-biotech products, standardization of analytical methods (by HPLC) for amino acids, proteins, sugars, extraction of essential oils by traditional methods (cedar wood, pine needles), etc. Also **owns a proprietary company, Tradewell India** involved in manufacturing various food products like high protein energy drink powders, meat tenderizer, etc.

**Dr. Ranjan Mohan Mogre**  
Email: mogre@vsnl.com



**Title of the Presentation:** Nutraceuticals in Ayurveda 'Then & Now'

**Abstract of the Presentation:**

Nutraceutical can be defined as, "a food (or part of a food) that provides medical or health benefits, including the prevention and/or treatment of diseases. Nutraceuticals are regarded as a "sunrise industry" in India, but health foods, tonic drinks and nutritional supplements are not new to the local diet. Indians have consumed similar products since very early times as a part of the country's traditional medical knowledge i.e. Ayurveda. One of the two objectives of Ayurveda is to maintain the health of a healthy individual and to achieve this aim, use of health promoting products in the form of dietary supplements (Rasayana) is recommended. Aahar Rasayana, one of the modalities of Rasayana deals with the usage of balanced food and food products, which can be used on daily basis for long life, lasting memory, talent, youth, luster, bright complexion, good voice and strength. References of implication of food and food products in various ailments are found in abundance in classical texts books of Ayurveda. Various food preparations such as Odan, Vilepi, Manda (Gruel), Yavagu (Gruel with plenty of water), Yusha, Kambalik, Khada etc is being used in day-to-day practice. These preparations are highly nutritious and used during convalescence.

In Ayurvedic texts, the degeneration processes in the human system have been described at every decade starting from childhood. One loses vital component of health after each decade. For each decade of life particular Rasayana is mentioned e.g. for first decade Vacha (*Acorus calamus*) and Swarna, for second decade Kashmari and Bala and for third decade Amalaki (*Embllica officinalis*) is advocated. Rasayana basically delays the ageing process and helps maintain youthfulness for longer periods as also in healthy ageing.

Many nutraceutical products have been used since antiquity for prevention, promotion of health and also for curing minor ailments through such nutraceuticals. Chyawanprash is one of the most famous nutraceuticals, formulated in the form of Avaleha (Paste). It is indicated for both preventive and therapeutic applications. Pippali Rasayan is another form of nutraceutical indicated for strengthening the respiratory system and to treat the various ailments of respiratory system. Medhya Rasayan is advocated to enhance learning capability, memory and to deal with day to day stress. Shastikaudan, Vajikaranpindaras, Phalagritha etc are used for betterment of reproductive system. Significance of the on-shelf nutraceuticals and also the probable formats for future applications will be discussed during presentation.

**Profile of the Speaker:**

**Recent Past Assignments:** 1. DEAN, R.A. Podar Medical College [Ayurveda] Govt. of Maharashtra, Mumbai (From 23rd April 2002-5th January 2004) 2. Consultant, Traditional Medicine, WHO Regional Office for South-East Asia [from 11 April 2001 to 22 Sept. 2001]

**Professional Qualifications**

B A M&S	University of JAMMU	Received GOLD MEDAL
M. D.(Ay)	Banaras Hindu University	Varanasi.
Ph. D in Ayurveda	Mumbai University	Sept. 1999

**RESEARCH ACTIVITIES**

**1.** Was Head of Special Panchakarma Department of Podar Medical College, Worli, Mumbai (INDIA) **2.** Acted as M.D(Ay) & Ph.D Guide recognised by University of Mumbai and have two registered candidates. **3.** Investigator for the Indian Council of Medical Research [ICMR] Project on Ksharsootra in Treatment of Fistula in Ano - 1985-1990 **4.** Was Chairman of Ethical Committee of R. A. Podar Medical College till Jan. 2005 **5.** Was Member of the Ethics Committee of Bioequivalence & Bio-availability Division of K. M. Kundnani College of Pharmacy. **6.** Member of the Task Force of Medicinal Plants Board of Rajasthan

**Prof. K. R. Kohli**

Email: [KuldipR@dabur.com](mailto:KuldipR@dabur.com), [krkohli@rediffmail.com](mailto:krkohli@rediffmail.com), [ayurvedaprofessor@hotmail.com](mailto:ayurvedaprofessor@hotmail.com)



---

## MORNING MANTRA

---

### Speakers

: **Mr. Jon Benninger**  
Business Development Director, Virgo Publishing LLC, Supply Side Show

**Topic:** Succeeding in the US market for healthy and natural products

**Mr. R.M.V. Raman**  
Special Advisor to Chairman & Managing Director, Exim Bank

**Topic:** Healthcare Tourism: Opportunities for India



---

## MR. JON BENNINGER

---

**Title of the Presentation:** Succeeding in the US market for healthy and natural products

**Abstract of the Presentation:**

The market for healthy foods, dietary supplements, herbs & botanicals and natural cosmetics is growing fast in the United States. This presents a very good opportunity for companies to enter the market with both ingredients and finished products. With its many resources and rich history of natural health, India is in a unique position to benefit from this market opportunity. The speaker will discuss the market situation in the U.S., and the ways that companies from India can successfully enter and compete.

**Profile of the Speaker:**

Jon Benninger is the director of business development at US-based Virgo Publishing, with responsibility for industry outreach and new business development. Benninger entered the natural products industry in 1990 and joined Virgo in 1995 as the founding editor of HSR (now

**Mr. Jon Benninger**  
Email: [jonb@vpico.com](mailto:jonb@vpico.com)



---

## MR. R.M.V. RAMAN

---

**Title of the Presentation:** Healthcare Tourism: Opportunities for India

**Abstract of the Presentation:**

The presentation would discuss about Exim Bank's association with the Indian Healthcare Sector and highlights select findings of the recent study undertaken by Exim Bank on 'Healthcare Tourism: Opportunities for India'. The study was released at the hands of His Excellency Governor of Maharashtra in the inaugural function of Fourth Nutraceutical Summit. The study viewed that India needs to offer comprehensive packages of healthcare and tourism solutions that are exclusive to India to remain competitive in the global healthcare tourism market.

**Profile of the Speaker:**

Mr. R.M.V. Raman has more than 35 years of professional experience in Development Banking and International Trade Financing. He was, till recently, an Executive Director in the Export-Import Bank of India (Exim Bank), an all-India Financial Institution, wholly owned by Government of India, set up to finance, facilitate and promote the international trade of India. Mr. Raman has worked in Reserve Bank of India, Industrial Development Bank of India, prior to joining Exim Bank in 1982.

Mr. Raman has widely travelled and participated in many international seminars and has also undertaken project feasibility studies and monitoring assignments in many countries. He has worked as the leader of Exim Bank team for a consultancy assignment for setting up the Exim Bank of Malaysia. He has negotiated and concluded many export lines of credit. He has interacted closely with regional and multilateral financial institutions and banks in the global market. He is a Director on the Board of Development Bank of Zambia. He has served on many policy-making Committees of Government of India and Reserve Bank of India. Mr. Raman holds Master's Degrees in Financial Management, English Literature and Physics.

**Mr. R.M.V. Raman**

Email: [rmvraman@eximbankindia.in](mailto:rmvraman@eximbankindia.in)



---

## EUROPEAN UNION - INDIA DAY: OPENING TALKS

---

**Speakers** : **Dr. V. Prakash**  
Director, CFTRI, Mysore, India

**Antonio Di Giulio**  
Head of Unit "Food, Health & Well Being"  
Directorate of Biotechnologies  
Food & Agriculture, DG Research(ADG)

### ANTONIO DI GIULIO

**Profile of the Speaker:**

Dr. Antonio Di Giulio is currently Head of the Unit – Food, Health and Well-being – in the European Commission, Directorate-General for Research .

He started his professional career as an agricultural economist with the United States Foreign Agricultural Service- Department of Agriculture, (FAS/USDA) in Rome, Italy, working primarily on commodity and food products market analysis as well as on scientific and regulatory aspects including food safety and WTO trade issues.

Prior to his post with the European Commission, he was Principal Administrator with the International Centre for Advanced Mediterranean Agronomic Studies, (CIHEAM) in Paris based inter-governmental organisation, linked to the OECD, where he worked on policies and research programmes on agricultural and food production systems of the Mediterranean region. His duties included the co-ordination of research programmes, and the supervision of CIHEAM Annual report on “development and agri-food policies in the Mediterranean region”, and he was also part of CIHEAM senior management committee.

He holds Masters degrees in Agricultural sciences and Rural development, Programmes and projects, respectively. He has a Doctoral degree in Agri-food economics.

**Dr. Antonio Di Giulio**  
Email: [antonio.di-giulio@ec.europa.eu](mailto:antonio.di-giulio@ec.europa.eu)



---

## ANTONIO DI GIULIO

---

### **Profile of the Speaker:**

Dr. Antonio Di Giulio is currently Head of the Unit – Food, Health and Well-being – in the European Commission, Directorate-General for Research.

He started his professional career as an agricultural economist with the United States Foreign Agricultural Service- Department of Agriculture, (FAS/USDA) in Rome, Italy, working primarily on commodity and food products market analysis as well as on scientific and regulatory aspects including food safety and WTO trade issues.

Prior to his post with the European Commission, he was Principal Administrator with the International Centre for Advanced Mediterranean Agronomic Studies, (CIHEAM) in Paris based inter-governmental organisation, linked to the OECD, where he worked on policies and research programmes on agricultural and food production systems of the Mediterranean region. His duties included the co-ordination of research programmes, and the supervision of CIHEAM Annual report on “development and agri-food policies in the Mediterranean region”, and he was also part of CIHEAM senior management committee.

He holds Masters degrees in Agricultural sciences and Rural development, Programmes and projects, respectively. He has a Doctoral degree in Agri-food economics.

**Dr. Antonio Di Giulio**

Email: [antonio.di-giulio@ec.europa.eu](mailto:antonio.di-giulio@ec.europa.eu)



---

## I - FARM TO NUTRACEUTICAL - WELLBEING

---

### Speakers

:

#### **Dirk Pottier**

Scientific Officer

Food Health & Well Being

Directorate of Biotechnologies, Food & Agriculture, DG Research

#### **Elisabetta Balzi**

International Co-operation Officer

Horizontal and Co – ordination Aspects

Directorate of Biotechnologies , Food & Agriculture, DG Research



---

## II - FOOD PLATFORM/ PROBIOTICS

---

### Speakers

: **Dr. Andras Sebök:**  
from the European Technology platform - ETP Food for Life

**María Saarela** (FI) –Probiotics - – a technology, food processing oriented cluster of health promoting research projects. Probiotics (FP5) is considered to be a real success story.

**Dr. M. C. Varadraj**  
Scientist, Head, HRD Department, CFTRI, Mysore, India

### DR. ANDRAS SEBÖK:

#### Profile of the Speaker:

András Sebök is the general manager of Campden & Chorleywood Food Industry Development Institute Hungary, also a visiting professor of the Szent István University at Gödöllő. He has considerable experience in practical implementation of R+D in the food industry, especially at SMEs. His activities are focused on product and process development, food safety risk assessment, traceability, technology troubleshooting and technology transfer. He is a member of the Board of the European Technology Platform "Food for Life", chairman of the SMEs Task Force of the ETP "Food for Life" and is a member of the hygiene and the research expert groups of the Confederation of the Food and Drink Industries of the EU (CIAA). He is a member of the Scientific Advisory Board of the Hungarian Food Safety Office.

**Dr. Andras Sebök:**



---

## DR. ANDRAS SEBŐK

---

### **Profile of the Speaker:**

András Sebők is the general manager of Campden & Chorleywood Food Industry Development Institute Hungary, also a visiting professor of the Szent István University at Gödöllő. He has considerable experience in practical implementation of R+D in the food industry, especially at SMEs. His activities are focused on product and process development, food safety risk assessment, traceability, technology troubleshooting and technology transfer. He is a member of the Board of the European Technology Platform "Food for Life", chairman of the SMEs Task Force of the ETP "Food for Life" and is a member of the hygiene and the research expert groups of the Confederation of the Food and Drink Industries of the EU (CIAA). He is a member of the Scientific Advisory Board of the Hungarian Food Safety Office.

**Dr. Andras Sebők:**



**Title of the Presentation:** Concept of Prebiotics and Probiotics in Indian Scenario

**Abstract of the Presentation**

Food habits of mankind have been a challenging area of scientific and technological developments. Simultaneous with the advancements made in food science and technology, there has been a change in the scenario of food habits. In the present global scenario, this changed focus has been more on foods which provide nutrition, health and safety to mankind. In this direction, attempts are being made to build in the functionalities of prebiotics and probiotics in foods through the use of beneficial microorganisms. Studies have been on a continuous mode with the main objective of obtaining desirable microbial cultures with desirable prebiotic and probiotic attributes and its application in traditional fermented foods using the base material of cereals, legumes, milk and others. The microbial cultures which are being looked upon as source of these attributes are those of lactic acid bacteria and bifidobacteria. As a preliminary step in assessing the potentiality, the promising cultures are screened for the beneficial attributes by in vitro methods. In the background of application of these cultures in foods, emphasis would be on those capabilities of microbial cultures which could act on primarily on the raffinose family of carbohydrates, as these are known to be the causative factors of flatulence, particularly in cereal and legume-based fermented foods. Simultaneously, the culture is also evaluated for desirable probiotic attributes by in vitro methods. For an application approach in food systems, the focus would be to obtain a single culture which could be a potent source of both these attributes and function more like a synergism.

The presentation would discuss on molecular approaches applied to characterize potent cultures of *Lactobacillus* sp. and *Bifidobacterium* sp. for desirable prebiotic and probiotic traits associated with these cultures. What could be the positive benefits of such cultures when applied in food systems also forms a part of this presentation.

**Profile of the Speaker:**

Dr. M.C. Varadaraj is the Head of Human Resource Development, Central Food Technological Research Institute, Mysore 570 020. After obtaining his Masters in Botany and Ph.D. in Dairy Microbiology, Dr. Varadaraj served the AMUL DAIRY in the capacity of Sr. Supdt. (QC and R&D). Since June 1987, he has been working at CFTRI, Mysore, first as a Scientist in the Department of Food Microbiology and later from June 2002 as the Head, Human Resource Development. Dr. Varadaraj has over three decades of research experience, with knowledge base and expertise in the area of foodborne pathogenic and spoilage bacteria in Indian foods and biopreservatives from lactic acid bacteria and their application in traditional fermented foods. He was awarded the UNU-KIRIN Fellowship of United Nations University, Tokyo, Japan for carrying out research and advanced training at National Agriculture Research Centre, Tsukuba, Japan for a period of one year during 1995-96. In 1999, Dr. Varadaraj was the recipient of Laljee Godhoo Smarak Nidhi Award-1998 of the Association of Scientists & Technologists (India) for his outstanding contribution in the area of Microbiology. He is a recognized guide for Ph.D. programmes and till date, six students have obtained their Ph.D. degrees under his guidance. Dr. Varadaraj's active research contribution is reflected in the documentation of research leads as papers, patents, processes, chapters in books, review articles, presentations in Conferences/Symposia and invited talks. Dr. Varadaraj has been contributing equally to research and development and academic programmes of the Institute.

**Dr. M. C. Varadraj**

Email: varadaraj@cftri.res.in



---

### III – ROLES OF NUTRACEUTICALS IN PREVENTIVE APPLICATION ON OBESITY

---

**Speakers** : **Wim Saris** (NL) -Diogenes - Diogenes is a pan-European Programme targeting the obesity problem from a dietary perspective, seeking new insights and new routes to prevention. The project addresses and stands for diets, obesity and genes.

**Dr. Jamuna Prakash**

Reader, Dept of Studies in Food Science and Nutrition, University of Mysore

**Topic:** Food Matrix And Bioavailability of Nutrients and Nutraceuticals.

**Dr. Nitin Patankar**

Anti Obesity Physician and Consultant Nutrition and Prevention of Disease

**Topic:** Managing Obesity with Nutrition Indian Perspective

### WIM SARIS

**Profile of the Speaker:**

Professor Wim H.M. Saris (1949) earned his degree in Human Nutrition at the Agriculture University of Wageningen and his MD degree at the Catholic University of Nijmegen. His PhD thesis (1982) was related to Nutrition, Physical Activity and Fitness in children. He then joined the Medical and Health Science faculty of the Maastricht University where he was appointed as Professor of Human Nutrition in 1988. In 1992 he initiated the Nutrition and Toxicology Research Institute NUTRIM and was the scientific director till 2005. In 2005 he part-time joined DSM as Corporate Scientist Human Nutrition at DSM Food Specialties Delft, The Netherlands

Major research interest is energy metabolism and substrate utilization under different conditions, such as athletic performance, obesity, type 2 Diabetes and cancer, with a particular emphasis on the development of functional food solutions. Furthermore, he is active in the field of general human nutrition, such as bone metabolism, gene - nutrient interaction in the gut and genetic susceptibility in relation to nutrition (Nutrigenomics).

He is author or co-author of 7 books and over 350 scientifically refereed articles dealing with topics like nutrition, obesity, type 2 diabetes, exercise physiology, cancer cachexia and nutrigenomics. He serves on the editorial board of several scientific, nutritional and physiological journals. He served many national and international committees among others the Dutch Health and Nutrition Council and the Recommended Daily Allowances committee and the Scientific Committee on Food (SCF now EFSA) of the European Commission in Brussels and European Technology Platform initiative "Food for Life"

Furthermore, among a number of EU research Framework projects; he is coordinator of the EU integrated research project DiOGenes "Diet, Obesity and Genes" which is the largest running obesity related research program in the EU framework program.

**Wim Saris**



---

## WIM SARIS

---

### **Profile of the Speaker:**

Professor Wim H.M. Saris (1949) earned his degree in Human Nutrition at the Agriculture University of Wageningen and his MD degree at the Catholic University of Nijmegen. His PhD thesis (1982) was related to Nutrition, Physical Activity and Fitness in children. He then joined the Medical and Health Science faculty of the Maastricht University where he was appointed as Professor of Human Nutrition in 1988. In 1992 he initiated the Nutrition and Toxicology Research Institute NUTRIM and was the scientific director till 2005. In 2005 he part-time joined DSM as Corporate Scientist Human Nutrition at DSM Food Specialties Delft, The Netherlands

Major research interest is energy metabolism and substrate utilization under different conditions, such as athletic performance, obesity, type 2 Diabetes and cancer, with a particular emphasis on the development of functional food solutions. Furthermore, he is active in the field of general human nutrition, such as bone metabolism, gene - nutrient interaction in the gut and genetic susceptibility in relation to nutrition (Nutrigenomics).

He is author or co-author of 7 books and over 350 scientifically refereed articles dealing with topics like nutrition, obesity, type 2 diabetes, exercise physiology, cancer cachexia and nutrigenomics. He serves on the editorial board of several scientific, nutritional and physiological journals. He served many national and international committees among others the Dutch Health and Nutrition Council and the Recommended Daily Allowances committee and the Scientific Committee on Food (SCF now EFSA) of the European Commission in Brussels and European Technology Platform initiative "Food for Life"

Furthermore, among a number of EU research Framework projects; he is coordinator of the EU integrated research project DiOGenes "Diet, Obesity and Genes" which is the largest running obesity related research program in the EU framework program.

**Wim Saris**



---

## DR. JAMUNA PRAKASH

---

**Title of the Presentation:** Food Matrix and Bioavailability of Nutrients and Nutraceuticals

**Abstract of the Presentation:**

Food matrix is the microstructure of food in which the nutrients and bioactive components are embedded. The processes which convert food to edible form, also alter the food matrix influencing the availability of the components apart from the composition of food and presence of promoters and inhibitors in diet. With changing dietary patterns, there is a change in food matrix through which the required components are obtained. The naturally occurring edible microstructure of food may either be fibrous, fleshy, in encapsulated embryo or in complex fluid form. Processing converts these to colloidal dispersions, emulsions, amorphous or crystalline phase or gel networks. Processing can have both beneficial and detrimental effect on wholesomeness of foods and the effect is more pronounced on the micronutrients and bioactive components. Hence, these components need designed food matrix for optimum availability and utilization.

**Profile of the Speaker:**

**Academic Qualifications:**

Degree	Year	Subject	University
Ph.D.	1992	Food Science	Univ. of Mysore, Mysore.
M.Sc.	1976	Foods & Nutrition	Univ. of Mysore, Mysore.
B.Sc.	1974	Home Science	Bangalore University.

**Teaching and research experience :** 30 Years.

**Research and Educational Projects:** 10.

**Research guidance for Ph.D.:-** Completed - 8, Working - 5.

**Research guidance for M.Sc. dissertation/ Project:-** 70.

**Research Interests**

**Food Science** - Compositional analysis of foods, product formulation, sensory evaluation, nutrient digestibility and bioavailability, functional properties of foods.

**Nutrition** - Nutrition status of population, food behaviour, diet surveys, nutrition and cognition, nutrition education.

**Medals/Prizes/Awards:**

- Gold Medal for securing I rank in M.Sc.,1976.
- Prizes (15) for poster papers – 1991, 1995, 1998, 2000, 2002, 2004,2006.
- Mohan Memorial award for Best Research Paper - 1997 and 2002.
- Dr. Leela Phadnis Memorial Lecture - 2004.
- Kellogs award for best paper on iron research - 2004.
- Young Scientist Award for co-author – 2005 and 2007.

**Publications and presentations :**

- Research and review papers – 120.
- Papers presented at conferences - 160.
- Invited lectures - 50.
- Books - 2.

**Dr. Jamuna Prakash**  
Email: jampr55@hotmail.com



---

## IV - GENES AND NUTRITION

---

**Speaker** : **Piero Dolara** (IT) -Nutrition genomics (NUGO) ) - – a network of excellence aiming at creating a virtual centre for developing, integrating and applying genomic technologies for the benefit of European consumer and training of European scientists to use post- genomic technologies in nutrition research.



---

## V - PREVENTIVE ASPECTS OF DISEASE WITH NUTRACEUTICALS

---

**Speakers** : **Tobias Hartmann** (DE) -Lipididiet - a new FP7 project aiming at developing lipid based diets for preventing or slowing down the development of Alzheimer disease.

**Dr. Mahesh Rao**

Associate Professor, JSS Medical College, Mysore

**Topic:** Epidemiology of Food Allergy in India – Results from Europrevall

### TOBIAS HARTMANN

**Profile of the Speaker:**

Since 2006 Professor for neurodegeneration & neurobiology at the university of the Saarland  
2003-2006 Project Group Leader, ZMBH  
1999-02 Project Leader, ZMBH  
1996-99 Postdoc, Beyreuther Laboratory  
1996 Dr. rer. nat., Univ. Heidelberg  
1984-92 Biology study, Muenster & Heidelberg

**Tobias Hartmann**



---

## TOBIAS HARTMANN

---

### **Profile of the Speaker:**

Since 2006 Professor for neurodegeneration & neurobiology at the university of the Saarland  
2003-2006 Project Group Leader, ZMBH  
1999-02 Project Leader, ZMBH  
1996-99 Postdoc, Beyreuther Laboratory  
1996 Dr. rer. nat., Univ. Heidelberg  
1984-92 Biology study, Muenster & Heidelberg

**Tobias Hartmann**



**Title of the Presentation:** Epidemiology of Food Allergy in India – Results from Europrevall

**Abstract of the Presentation:**

Europrevall is a global multidisciplinary study, having a close interaction between basic researchers and clinicians on Food Allergy in the world, funded by the European Union. The chief coordinator of the project is Dr. Clare Mills, Institute of Food Research, UK. The study in India has completed a questionnaire-based survey of 27,000 subjects in Mysore and Bangalore. The selection of subjects was according to standard epidemiological principles and 30 wards out of 65 wards in Mysore and 30 wards out of 100 wards in Bangalore were selected for the study. A cluster of 100 consecutive houses was selected and all the adults and children in these houses who were willing to participate were included and trained surveyors administered the questionnaire. A response rate of more than 95% was obtained. The survey included wards with different socioeconomic spectrum and different environments and lifestyles. The prevalence of food related symptoms in adults in Bangalore was 2.78% (males) and 3.05% (females) and in Mysore was 2.9% (males) and 3.8% (females). The prevalence of Food Related symptoms in Children in Bangalore was 1.75% (males) and 2.02% (females) and in Mysore was 1.4% (males) and 2% in females. The most common food causing symptoms was Brinjal in Mysore and Fried Foods in Bangalore. One of the striking features was the observation that the prevalence of food related symptoms varied from 0.2% to >9% in Bangalore and 0% to >6% in Mysore rendering it an ideal model to study gene-environment interactions in future studies.

**Profile of the Speaker:**

Dr. Mahesh PA, is currently Associate Professor, JSS Medical College and is the Honorary Secretary of Indian Academy of Allergy. He is a member of the committees of the American Academy of Allergy Asthma and Immunology, the Asia Pacific Committee and International Health Care Delivery Committee. He is at present the Indian Co-ordinator of "Europrevall" a global study of the prevalence and mechanisms of Food Allergy sponsored by the European Commission. He has won the "Young Scientist" Award and "Raju" Award for research in Allergy. Has been involved in various projects by National and International Organisations like ICMR, UGC, Federation of International Pharmacy among others. Research interests include prevalence of allergic diseases, secular trends, mechanisms of allergy, hygiene hypothesis, prevention of asthma, prevention of COPD, role of antioxidants, Food Allergy.

**Dr. Mahesh Rao**

Email: mahesh1971in@yahoo.com



---

## CEO SUMMIT

07.00 pm onwards at Taj President

---

**Chair** : **Dr. V. Prakash**  
Director, CFTRI, Mysore, India

**Distinguished Panelists:**

**Mr. Ajit Singh**  
Chairman, ACG Worldwide

**Mr. Shekhar Sethu**  
Managing Director, Herbalife International India Ltd

**Mr. Sanjaya Mariwala**  
Managing Director, Kancor Ingredients Ltd

**Dr. Leonard Scott**  
Managing Director, DSM Nutritional Products India Pvt. Ltd.

**Dr. Ashish Bhoje**  
Vice President – R & D, Godrej Hershey Ltd



---

## NUTRACEUTICALS IN DISEASE PREVENTION, TREATMENT & AFTERCARE

---

**Chair** : **Dr. Ashok Vaidya**  
Research Director, Kasturba Health Society

**Co Chair** : **Dr. G. A. Krishna**  
Head, Planning, Monitoring & Coordination Department, CFTRI, Mysore, India

**Speakers** : **Dr. Anoop Misra**  
Director & Head, Deptt. of Diabetes and Metabolism, Fortis Group of Hospitals

**Topic:** Syndrome X and Hyperglycemia: Any role of Nutraceuticals

**Mr. Jagdev Singh**  
President, Malaysian Dietary Supplement Association

**Topic:** The role of Omega 3 Fatty Acids in Coronary Artery Disease.

**Dr. Y.B. Tripathi**  
Professor, Banaras Hindu University

**Topic:** BHUx: An evidence based polyherbal for atherosclerosis and osteoporosis"

**Dr. Jayant Deshpande**  
Vice President, OmniActive Health Technologies Pvt Ltd

**Topic:** Co-Existence of Pharmaceuticals and Nutraceuticals for the prevention / treatment of Disease.

**Mr. Rajendra Deolankar**  
Head Quality Management, National Institute of Virology

**Topic:** Disease Informatics: ICD-11 at the doorstep

**Dr. Sharad Kasarle**  
Vice President – Nutraceuticals & Health Foods, Alkem Laboratories Ltd

**Topic:** New Developments in Nutraceuticals in Disease Prevention



---

## DR. ASHOK VAIDYA

---

### **Profile of the Chair:**

Dr. Ashok Vaidya had his undergraduate and postgraduate medical education at Seth G.S. medical College, Mumbai. He belongs to the fourth generation of medicine and Ayurveda. His ancestor-Aryavaidya Mayaram Sunderji was a renowned Ayurvedic Scholar, author and an expert Vaidya. Dr. Vaidya has inherited his archives and notes.

He was awarded the Merck International Fellowship in Clinical Pharmacology for advanced research training in USA. At Yale Medical School, he was at the Cardiology Clinic and the Section of Clinical Pharmacology, with a research focus on hypertension and biogenic amines. Later, he was at the CIBA Research Centre and KEM Hospital, Mumbai for Phase I, II and III clinical trials on new molecules, and research on natural products at Podar Ayurvedic Hospital. He retired from CIBA as Medical Director and dedicated himself to scientific research in Ayurveda, at SPARC. Dr. Vaidya has pioneered the new discipline of Reverse Pharmacology in Traditional Medicine. Currently, he is in charge of the ICMR's Advanced Centre of Reverse Pharmacology at KHS-MMRC, Mumbai. His research in Ayurveda has contributed new modalities in Parkinson's disease, diabetes, hepatitis, arthritis and cancer.

Dr. Vaidya has received several honours and awards. The major ones are -- Lifetime Achievement Award and Sir Ramnath Chopra Award by Indian Pharmacology Society, Prof. U. K. Sheth Oration Award in Clinical Pharmacology, Shri. B. V. Patel Memorial Award, Dr. SL Bhatia Oration, Rotary Distinguished Service Award etc.

He has been the president of the Indian Society of Clinical Pharmacology and Association of Medical Advisors to the Pharmaceutical Industry. He has been on the editorial boards of several journals. He has been a consultant to WHO, CSIR, ICMR, DBT and several industries and research councils. Dr. Vaidya has traveled extensively nationally and internationally, as he has been a much-sought speaker at scientific conferences and meetings on Ayurveda/Medicinal Plants. Dr. Vaidya has more than 250 research publications to his credit. His students and colleagues, trained by him in clinical drug research and Ayurveda, occupy important positions in academia and industries.

**Dr. Ashok Vaidya**

Email: [avaidya@bom5.vsnl.net.in](mailto:avaidya@bom5.vsnl.net.in)



---

## DR. G. A. KRISHNA

---

### **Profile of the Chair:**

**Educational Qualifications:** Post graduate in Food Science and Technology with Post graduate diploma in Business Management and Industrial relation. Also certificate course completed in Intellectual Property Management from World Intellectual Property Organization (WIPO)

### **Work Experience:**

- About 4 years of work experience in Food Processing industry and then joined as Scientist in CFTRI
- At CFTRI, about 20 years of work experience in the are of Technology Transfer, management of in-house and grant in aid R & D projects, Intellectual Property filing and Management.

### **Visit Abroad:**

- Visited South Africa: To study the Expertise & Infrastructure of CSIR at South Africa
- Visited Zambia: to study and participate in Technology Marketing
- Visited Bhutan: to Survey on Potential for setting up of Fruit and Vegetable Processing Unit
- Visited USA: to participated in International Food Technology convention

### **Publications:**

- Guideline for Patent Specification
- CFTRI Patent bulletin
- Patent Alert every month
- Functional Foods-IPR Angle, Journal of Intellectual Property Rights

**Dr. G. A. Krishna**  
Email: [krishna@cftri.res.in](mailto:krishna@cftri.res.in)



**Title of the Presentation:** Syndrome X and Hyperglycemia: Any Role of Neutraceuticals?

**Abstract of the Presentation:**

Asian Indians are predisposed to develop type 2 diabetes, the metabolic syndrome (syndrome X) and accelerated atherosclerosis. Heightened metabolic risk in this ethnic group starts early in childhood and escalates with imbalanced diet and sedentary lifestyle. Some of the important characteristics of Asian Indians which predispose them to develop hyperglycemia and atherosclerosis are; excess adiposity, high subcutaneous and intra-abdominal adipose tissue, insulin resistance and the metabolic syndrome (Syndrome X), hepatic steatosis, sub-clinical inflammation and endothelial dysfunction. Some of these manifestations appear at birth or early childhood. Further, in Asian Indians, cardiovascular risk manifests at a lower level of adiposity and abdominal obesity. Such cardiovascular risk profile has been increasingly reported in economically disadvantaged people in rural areas and urban slums. In such populations, risk factor profile is continuously changing and becoming adverse.

In view of these data, it is important that the metabolic risk factors, particularly Syndrome X should be targeted for prevention of type 2 diabetes and coronary artery disease in Asian Indians. In this presentation, some promising candidate neutraceuticals would be discussed.

**Profile of the Speaker:**

Dr Misra is an internationally acclaimed researcher and scientist. He has been a member of a number of national and international policy and decision-making bodies in internal medicine, diabetes, obesity and cardiovascular diseases. He has been a member of WHO and ICMR Expert Groups for Childhood Obesity (2005, 2006), WHO Expert Committee for Appropriate Measures of Obesity in Asian Populations (2005), and ICMR Expert Committee on Fatty Liver (2007). He has been a key member for National Control Programs for Diabetes and Cardiovascular Disease, India, Founding member, Diabetes in Asia Group, and in various top-level national committees set up by Health Ministry, Planning Commission, Indian Council of Medical Research, Dept. of Biotechnology, Department of Science and Technology, and the World Health Organization. He has been in Health Ministry committees for developing national guidelines in drugs and pharmaceuticals, and is a member of National Pharmacovigilance Committee, Indian Pharmacopoeia and is in monitoring committees for National Institute of Nutrition (Hyderabad) and Department of Biotechnology. He is Chief Scientific Advisor, Diabetes Foundation (India), and core committee member of Diabetes India. He is Chairman, Scientific Advisory Board, Chronic Care Foundation, India. He is in Steering Committee of prestigious Magnuson's Global Diabetes Research Alliance Group (2008).

He has been awarded highest award for medicine in India Dr BC Roy award (2006) and prestigious National Honour, Padma Shree (2007).

**Dr. Anoop Misra**  
Email:anoopmisra@gmail.com



---

## MR. JAGDEV SINGH

---

**Title of the Presentation:** The role of Omega 3 Fatty Acids in Coronary Artery Disease.

**Abstract of the Presentation:**

Coronary Heart Disease is still the most common cause of death in many developed and developing countries like Malaysia and India. Various modalities and pharmaceutical approaches have been employed to arrest the situation. In this era of multiple pharmacological treatments for cardiovascular disease, there may be a role for the inclusion of omega 3 fatty acids either as inclusion in the diet or as supplements.

The hypothesis that consumption of fish and therefore of n-3 fatty acids reduces the risk of coronary heart disease originated from observational studies showing that Eskimos had a low mortality from CHD despite a diet that is rich in fat.

Studies of Inuits populations of Greenlanders by Bang and Dyerberg in the 70's were the first to show the cardioprotective effects of marine related omega 3. This low incidence of cardiovascular disease was seen despite a high intake of fats.

This presentation is a review on the clinical aspects of n-3 fatty acids in cardiovascular disease. It will touch on ● Epidemiological and Observational Studies ● Randomized Controlled Trials(RCT) ● Mechanism of Action ● Side effects ● Safety of fish

The conservative American Heart Association and the US Federal Drug Administration has come out strongly in favour of omega 3 fatty acids with recent statements.

There are now strong reasons to suggest the anti arrhythmic effect of fish oil and its role in the prevention of sudden cardiac death. There are also some excellent clinical works on omega 3 fish oil being pursued in the area of depression, auto-immune related diseases and cancers.

**Profile of the Chair:**

**Professional Qualifications:**

Bachelor of Pharmacy (Hon.), University of Science, Malaysia - 1986

Certificate in Ayurvedic Medicine, The Ayurvedic Institute, USA - 2005

**Professional Membership:** **1.** Malaysian Dietary Supplement Association – President **2.** Malaysian Heart Society – Vice President **3.** Malaysian Pharmaceutical Society – member **4.** International Society of the Study of Fatty Acids and Lipids (ISSFAL) - member **5.** GO RED for women nationwide campaign – Main initiator and chief coordinator (Under the patronage of Datuk Paduka Rosmah – wife of Deputy PM

**Working Experience:** **1.** General Hospital Kuala Lumpur - Pharmacist - 1986-1987

**2.** ICI Pharmaceuticals (CCM Group) – Product Manager - 1988-1995 **3.** PrimaHealth Pharmacy (CCM Group)- 1996-1998 Business Development Manager **4.** HeartScan Malaysia – Country

Manager - 1998-2002 **5.** Total Health Concept – Director - Present **6.** Protherapix – CEO- Present

**7.** Health Dynamics – Director - Present

**Mr. Jagdev Singh**

Email: jagdev@thcmy.com



---

## DR. YAMINI BHUSAN TRIPATHI

---

**Title of the Presentation:** BHUx: An evidence based polyherbal for atherosclerosis and osteoporosis"

**Abstract of the Presentation:**

Pathological calcification in soft tissues can have severe consequences and Osteoporosis and endothelial dysfunction have been associated with atherosclerosis. Interestingly, the process of biomineralization resembles with bone formation. A significant inverse correlation between intimal medial thickness (IMT) and bone mineral density (BMD) has been reported by several scientists, specially in women >60 years of age. It may be due to the presence of common risk factors. Hypertension, increased triglycerides, and reduced HDL are the risk factors for low bone mineral density. Today, these age-related metabolic diseases are major health problems trough out the world. Oxidative stress and inflammation are the major factors, which may be because of several external (toxins, drugs, fried food) and internal factors ( high dexamethasone, abnormal adrenal function, disregulated lipid metabolism, sub-clinical hypothyroidism etc. Oxidized phospholipid has also been found to inhibit the spontaneous osteogenic differentiation of marrow stromal cells, suggesting a link between atherosclerosis and osteoporosis. There are several therapeutic approaches, which are in practice today, but herbal food supplement is gaining high priority because of lesser side effect.

Recently we have developed BHUx, which would be significantly effective for both of these pathologies. It is a polyherbal formulation (patented by DBT and BHU in EU, USA, China and India), and has been developed from an ayurvedic drug Sandhika, which consists of water soluble fraction of Commiphora mukul, Boswellia serrata, Semecarpus anacardium and Strychnos nux vomica. It has been shown to specifically inhibit cyclooxygenase (COX)-2 and lipoxygenase (LOX)-15 and to prevent diet-induced atherosclerosis in rabbits. Recently we have observed that it enhances the calcium nodule formation and bone specific alkaline phosphatase activity in MC3T3-E1 osteoblast-like cells, both in presence and absence of LPS. Thus it could be suggested BHUx can be clinically tried as a functional food to simultaneously target atherosclerosis and osteoporosis. However, the application of basic concepts of Ayurveda along with these herbal drugs will be more beneficial.

**Profile of the Speaker:**

Education Ph.D. in Biochemistry

Field of specialization: Experimental Medicine

Patent 2 (Through DRDO and DBT), Papers published 71 (62+9), Papers in International journals 31

Paper presented and abstracted 64, Teaching Experience 25 Years Postgraduate, Research Experience (in years) Doctoral: 4 Years Post-doctoral: 22 Years, Experience of guiding Ph.D.: 11

**Patent:** PCT (Patent Cooperation Treaty) from International bureau- WO 2004/062566 A2 dated 29-7- 04 (now entered to National phase for China, USA, India, Germany and UK)- A polyherbal drug to prevent atherosclerosis and hyperlipidemia,)

Indian Patent for a Polyherbal Formulation to prevent Radiation induced damages

**Awards**

2005 PA Kurup Oration Award Indian Society of Atherosclerosis. Res.

2002 Indo-US Collaborative Res. Prog. Dept. of ISM & H, Ministry of Health

2002 Technology transfer Memento Dept. Of Biotechnology, Govt. of India

2001 Shri Hari Om Ashram Gold Medal Gujarat Ay. University , Jamnagar

**Dr. Yamini Bhusan Tripathi**

Email: yaminiok@yahoo.com/yamini@bhu.ac.in



---

## DR. JAYANT DESHPANDE

---

**Title of the Presentation:** Co-Existence of Pharmaceuticals and Nutraceuticals for the Prevention / treatment of Diseases.

**Abstract of the Presentation:**

Nutraceuticals and Pharmaceuticals have a well defined role to play in health care arena. Though both fields deploy similar delivery forms such as Tablets, Capsules, Softgels etc, they address distinctly different concerns of health care. Typically, nutraceuticals are expected to prevent or correct the diseases due to the deficiency of nutrients in our diet, thereby promoting wellness, while pharmaceuticals, typically, provide remedy to the diseases. There are some areas where there is a kind of overlap. Specifically, vitamins/minerals are part of both the worlds where they co-exist with a fine line of demarcation. Yet, a well informed consumer can easily understand and appreciate the health benefits offered by both of these worlds.

**Profile of the Speaker:**

Dr Deshpande is presently working as Vice-President Technical at OmniActive Health Technologies, Mumbai. Prior to this he worked as Sr. Manager, R&D, Kopran Research Laboratory, Mumbai. He has more than 25 years of research experience in pharmaceutical and nutraceutical industry. He has more than 15 patents to his credit.

The area of research of Dr. Jayant Deshpande includes biocatalysis, polymer synthesis, drug delivery technologies, drug discovery and delivery technologies for nutraceuticals. Dr Deshpande has made special efforts in evaluating bioavailability of various nutrients in humans and animal models.

In addition to research, Dr. Deshpande has vast experience in analytical validation with respect to nutraceutical ingredients and formulation. He has been selected as Study Director for Collaborative Study for Lycopene by AOAC, USA.

Apart from industry, Dr. Deshpande has special interest in academic activities. He has been a Visiting Faculty to UICT since 2001. He has served as Member, Board of Studies, Department of Biochemistry, Mumbai University.

**Dr. Jayant Deshpande**

Email: [j.deshpande@omniactives.com](mailto:j.deshpande@omniactives.com)



---

## DR. RAJENDRA P. DEOLANKAR

---

**Title of the Presentation:** Disease Informatics: ICD-11 at the doorstep

**Abstract of the Presentation:**

Failure of 'Herbals' or 'New Chemical Entities' to show activity (e.g. antiviral) in laboratory assays does not nullify the traditionally established utility of principle under investigation in preventing (viral) disease. The ability of remedy to alter Disease Causal Chain (DiCC) should be investigated. Not having done this, patients are deprived of several nutraceuticals and functional foods or lifestyle modalities capable of preventing or reversing the disease. They are sometimes subjected to consuming drugs having tremendous side effects. Epidemiologists Rothman and Greenland having quoted by Bang et al (Journal of Perinatology (2005) 25, S35- S43), as the "one cause - one effect" understanding is a simplistic misbelief. The basis of Disease Informatics is to operate on the fact that "most outcomes — whether disease or death — are caused by a chain or web consisting of many component causes. The purposes of defining the diseases are to understand exactly what those are so that those are prevented or reversed. The features of Eleventh version of International Classification of Diseases (ICD-11) would facilitate the implementation of such newer concepts and would be a great boon to nutraceutical industry provided we organize ourselves to use the platform provided by ICD-11. The presentation provides guidance in this regard and demonstrates how to draw DiCC using an exemplary case that is useful for nutraceutical development.

**Profile of the Speaker:**

Presently:

Head: Quality management, National Institute of Virology (NIV), Pashan-Sus Road, Pune 411021

Earlier: Program Coordinator: NIV Academic Program

Head: Virus Registry, Tissue Culture, Viral Diarrhea

Curator: Lab Animal Facility at NIV

Pioneer in Development of Concept of Disease Informatics

PhD (1981) and MSc (1978) from Pant University, Nainital  
(ICAR Junior and Senior Fellow, INSA Post Doc fellow)

Fields: Nutrition, Biochemistry, Statistics, Biotechnology, Virology, Epidemiology, Education and Quality Management

Special Interest: Disease Informatics and Simple solutions to the disease problem

**Dr. Rajendra P. Deolankar**  
E-mail: oonnatie@yahoo.com



---

## DR. SHARAD KASARLE

---

**Title of the Presentation:** New Developments in Nutraceuticals for Disease Prevention

**Abstract of the Presentation:**

In spite of the advancements in Medical Science & Technology, there is an increasing need of Nutraceuticals, & Functional food supplements for **Healthy Lifestyle management**.

Life style related disorders such as Obesity, Pre-mature Ageing, Hypertension, Arthritis, Osteoporosis, Diabetes & its complications such as Atherosclerosis, Chronic Heart Failure, Myocardial Infarction, Neuropathy, Retinopathy, Renal failure & so on which are life threatening. Even there is an increasing trend of Child obesity, Juvenile Diabetes & Gestational Diabetes (In pregnant women) & the only way to prevent their serious complications is to adopt Health Foods & Nutraceuticals.

Presentation covers the latest developments in the fields of Nutraceuticals and Functional foods, in Disease prevention & or cure & include Natural **Healthy Sugar substitutes** & their synergistic combinations for optimum sweetness index, **Healthy fat substitutes**, Taste & flavour enhancers (Amino Salts and seasonings), New Functional foods for Pregnant, Lactating & Nursing, Paediatrics, Elderly population, & Middle age executives for improving strength, stamina, vitality, Rejuvenation & vigor.

Speciality High power Anti Oxidants, Ace inhibitors, Circulation enhancers, Amino acids, Enzymes, Micronutrients, Vitamins, Minerals, Detox, Immunity boosters, Anti ageing, Mood enhancers, etc have been included w.r.t. their enormous health advantages.

**Profile of the Speaker:**

**Dr. Sharad Kasarle** is a Food Scientist and Technologist from UICT, Mumbai & also a 'Registered Medical Practitioner' in Diet, Nutrition and Medicinal Herbs (established under World Health Organisation and recognised by UNICEF, UNESCO and International Council for Health FREEDOM, U.S.A.)

**Experience, Innovation and Development:**

**Dr. Sharad** has over Two Decades' of rich experience in Research and Development, with innovative developments in Nutraceuticals, Functional foods and Health foods. He has worked with leading Food Processing organizations such as NFIC (JEDDAH, KSA), Kellogg's, Brooke Bond Lipton India Ltd, Marico Ind. Ltd., Corn Products Co. India Ltd. (KNORR) & Tasty Bites Eatables.

**Current Position and Achievements:**

**Dr. Sharad Kasarle** is at present successfully leading the Sales and Marketing team at Alkem Laboratories. High intensity sweeteners such as Sucralose, Natural Prebiotic sweetener **FRUCTO OLIGOSACCHARIDE**, etc. are his creations in Alkem, other than various Nutraceuticals and Herbal formulations.

**Dr. Sharad Kasarle**  
Email: [kasarle@alkem.com](mailto:kasarle@alkem.com)



---

## DOCTORS & NUTRITIONISTS FORUM: NUTRACEUTICALS & LIFESTYLE MANAGEMENT

---

Brought to you by Avethagen Ltd

- Chair** : **Dr. R K Sanghavi**  
Medical Advisor, Consultant-Pharma MedicoMarketing
- Panelists** : **Dr. Sharad Kasarle**  
Vice President - R&D Nutraceuticals, Alkem Laboratories Ltd
- Mr. Jagdev Singh**  
President, Malaysian Dietary Supplement Association
- Dr. Salome Benjamin**  
Chief Dietician, Nair Hospital
- Ms. Gourpriya K Koppikar**  
Chief Dietician, Bombay Hospital Trust
- Dr Jyoti D Vora**  
Head, Department of Biochemistry and Food Science and Quality Control  
Ramnarain Ruia College

### DR. R. K. SANGHAVI

#### Profile of the Chair:

**Panelist:** LIC, RTO, New India Assurance, Air India, Indian Airlines, GangaDon Consulting Services Ltd (Canada), Eaubiotic Collaborators (Ankleshwar), Kiran Agencies (Mumbai), La Pharma (Ahmedabad)

**Chairman-Medical Subcommittee (IDMA)** [4 consecutive years]

**Conferences organized for Medical Professionals:** Spurious Drugs – A Pernicious Health Hazard (2003, 2004 & 2007 Mumbai); Schedule Y – The New Look (2005, Mumbai); BABE – The Lifeline of Pharmaceuticals (2006, Mumbai); Workshop on GCP – Practicing What Is Preached (2006, Mumbai); Negotiating Biostatistics (2007, Mumbai)

**Advisor:** Biochem (Mumbai), Blue Cross (Mumbai), Gepach (Russia, CIS), KC Lab (Mumbai), Medreich Sterilab (Bangalore), Themis Labs (Mumbai), Sunshine Biotec (Mumbai), Svizera (Mumbai), Vilco Labs (Mumbai), Yash (Mumbai)

Dr. Sanghavi is a consulting physician practicing in Mumbai since over 25 years. He has 8 published articles to his credit, besides editing a book: 'Force Success Follow You'. He has also authored over 25 books on various drugs and medications and has brought to focus relatively unknown, but patient-treatment useful attributes of many products. Dr Sanghavi has been a well-received speaker at every platform (National / Local medical org, Colleges / Teaching Hospitals, sponsored meets), be it in India or overseas. He has successfully addressed Cardiologists, Cardio-Thoracic Surgeons, Dentists, Diabetologists, Physicians, Gynecologists, Andrologists, Surgeons, Orthopedic Surgeons, Rheumatologists, Dermatologists, Ophthalmologists, Psychiatrists, Family Practitioners & even Rotarians on over 180 occasions. His versatility stems from his acceptance as a speaker par excellence, with fine-tuned visual presentation, at every major city and metropolis in India by doctors with varied expertise.

Dr Sanghavi specializes in conceptualizing designer products for specific disease/ disorder management. His ability to threadbare the pathophysiology is exceptional, and it is this aptitude of doing this that provides a glaring insight how best to manage the disease/ disorder.

**Dr. R. K. Sanghavi**  
Email: rks@drsanghavi.com



---

## CLAIMS, LABELLING & POLICY ISSUES

---

**Chair** : **Mr. Kamlesh Parwani**  
Dy. General Manager, Personal Care, Food & Household ( South Asia )  
Dow Chemicals International Pvt. Ltd.

**Speakers** : **Mrs. Kumud Sampath**  
Vice President - International  
United States Pharmacopeia India Private Limited

**Topic:** USP's Prospective on Quality & Labelling

**Mr. Suhas Chaudhari**  
Joint Commissioner (Greater Mumbai)  
Food and Drug Administration, Maharashtra State, Mumbai

**Topic:**

**Dr. Bhushan Karnik**  
Managing Director, Optimal Nutrients India

**Topic:**

**Dr. Deepa Bhajekar**  
CEO, The MicroChem Laboratory

**Topic:** Nutraceuticals : Labeling & analytical trends

### MR. KAMLESH PARWANI

**Profile of the Chair:**

I am an MBA from NMIMS and a chemical engineer from MIT with around 12 years of professional experience in various sectors in Indian Chemical industry like food , personal care , pharma , paints and coatings , aroma chemicals etc . I am Dy General Manager at Dow Chemicals since last 3 years heading the food and personal care division.

**Mr. Kamlesh Parwani**  
Email: KParwani@dow.com



---

## MRS. KUMUD SAMPATH

---

**Title of the Presentation:** USP's Prospective on Quality & Labelling

**Profile of the Speaker:**

Kumud Sampath is currently the International Vice President (India) of U.S. Pharmacopeia India (Pvt) Ltd., a wholly owned subsidiary of United States Pharmacopeia, Rockville (Maryland) USA. Before joining USP, she was President and Head of Operations of AstraZeneca India (Pvt) Ltd., a wholly owned subsidiary of AstraZeneca plc. UK, AstraZeneca India is a Discovery Research Centre for developing World Medicine. She was associated with the Research Centre for the past 18 years (formerly known as Atra Research Centre India.). She managed the research facilities with high efficiency for projects with predetermined timelines and budget.

Mrs. Kumud Sampath has a basic University Degree (B.Sc.) in Biology and Chemistry (Bangalore Univeristy). She has additional qualifications in Business Management, MBA (Delhi University), and in R&D Management (IIMD, Lusanne, Switzerland). She has served on many committees of the Government of Karnataka, as a member on the Executive Board of the Association of Biotechnology Led Enterprises (ABLE), and on the National Advisory Committee on Biotechnology (Confederation of Indian Industry).

**Mrs. Kumud Sampath**

Email: [kxs@usp.org](mailto:kxs@usp.org)



---

## DR. DEEPA BHAJEKAR

---

**Title of the Presentation:** Nutraceuticals : Labeling & analytical trends

### **Abstract of the Presentation**

Food labels, & claims are designed to help consumers make healthy food choices. Recent government regulations are also ensuring that important nutritional constituents of all packaged foods are correctly displayed.

Declaration of the common name of the product, name & address of the manufacturer, net contents in terms of weight, measure or count, ingredient list and nutrition facts are some of the mandatory requirements laid down to help consumers have access to useful information and thus make smart, informed choices.

A focus shall also be given on helping consumers understand and read nutritional labels correctly and interpret them suitably to match their own daily nutritional and dietary needs.

This talk focuses on the labeling requirements for nutraceutical products and the recent changes and addition to government policies in this regard in the India. It would also discuss trends being followed in the other developed and developing countries, and their impact on food processors/exporters in India.

### **Profile of the Speaker:**

#### **Higher Education:**

<b>Name and Location of Institution</b>	<b>Years From - To</b>	<b>Date Graduated</b>	<b>Degree Received</b>	<b>Field in Which Degree was Issued</b>
Ramnarain Ruia College	1984 - 1987	1987	B.Sc.	Microbiology
University Institute of Chemical Technology (UICET)	1987 - 1992	1992	PhD	Industrial Microbiology

After completion of Ph.D. joined 'Texanlab' an analytical and textile testing laboratory and set up an entire sophisticated instrumentation division. The division included the GC-MS, GC-ECD, GC-FID, AAS among several others. After working for 6 years, started a food testing laboratory in 2000. Called 'The MicroChem Laboratory' situated in Thane near Mumbai, it carries out chemical and microbiological analysis of all varieties of food products and raw materials. Foods tested include fast food, preserves such as pickles and chutneys, bakery goods such as breads and biscuits, instant foods, cereals, meat and meat products amongst others. It specializes in forming nutritional labels, which tell us the nutritive value of a wide range of raw materials and processed foods for exports.

The laboratory also specialises in water analysis. The potability of water is checked to detect any toxic elements and unwanted microbial flora. The tests carried out at the laboratory cover a wide sphere like physical, chemical, analytical & microbiological tests. At a personal level, Dr. Deepa is a HACCP auditor and trouble-shooting is carried out at food manufacturing units to identify the process parameters that could be modified to prevent spoilage and increase shelf-life of processed foods. This consultancy has been carried out at a number of food units with diverse product range and successful results.

**Dr. Deepa Bhajekar**  
Email:microchem@vsnl.net



---

## **POSTER ABSTRACTS**

---



## BIOCHEMICAL AND ORGANOLEPTIC STUDIES ON BEVERAGE VARIANTS FROM BETA VULGARIS

Dr. (Mrs.) Jyoti D. Vora, Head  
Ms. Hemangini A. Desai, Ms. Shohini R. Ganguly  
Department of Biochemistry and Food Science and Quality Control  
Ramnarain Ruia College, Mumbai

**Keywords:** Fermentation, beetroot, beverage, nutraceutical, organoleptic analysis

Beverages form a significant component in the daily diet and play an important role in the aesthetic, gustatory and satiety oriented preference of subjects in the global context. Wine is a popular alcoholic beverage produced through the fermentation of grape, other fruit and vegetable juices. Vegetables are rich sources of biologically active compounds which have beneficial effects in the prevention of diseases including certain types of cancer. Hence, vegetables prove to stand as an alternative to the conventional fruit (grape) source for wine. The objective of this research endeavor is to optimize the nutritional and organoleptic profile of a locally available vegetable and project it as a viable source of production of wine. The species of locally available Beta vulgaris (beetroot) was used as the source for the fermentative beverage production. In order to improve the nutritive and nutraceutical profile of the product, the beetroot wine was enriched with carrot and spices to prepare two samples. The wine samples were prepared using the following combinations – beetroot and carrot juice, and beetroot juice spiked with ginger, cinnamon and cloves. The beverages were fermented using a culture of wine yeast (*Saccharomyces cerevisiae* YHP 499). The samples were compared separately with a prepared neat beetroot wine. The physiochemical properties of the samples assessed were alcohol content, reducing sugars, titrable acidity, pH, colour intensity, specific density and micronutrients. The results procured by analyzing these proximate principles on a time-dependent scale (over a period of 2 months), illustrate that the enriched samples contained higher content of micronutrients than that of neat wine and showed lower alcohol content and depicted presence of sucrose. Organoleptic analysis was done to see the commercial profile, viability and acceptability of the samples. It illustrated encouraging results which concluded that enriched samples were more palatable and largely accepted over neat wine. Hence, the work concludes the advantages of utilization of low cost, nutritionally enriched and commercially viable attributes of beetroot as a source for winemaking, represents an emphatic in-road in the contemporary enological perspective in the Indian context. Future objectives include a study on the native organism *Saccharomyces cerevisiae* genomics and extrapolation of the winemaking endeavor to larger scale of production.

Contacts : Dr. (Mrs.) Jyoti D. Vora (drjyotivora@yahoo.co.uk)  
Ms. Hemangini A. Desai (jili1985@gmail.com)  
Ms. Shohini R. Ganguly (shohini.ganguly@gmail.com)

**Poster Presenter** : **Shohini R. Ganguly, Hemangini A. Desai**  
**Address** : Department of Biochemistry and Food Science & Quality  
Control, Ramnarain Ruia College, Matunga, Mumbai-400019  
**Tel** : 022-24143098 Extn 159  
**Mobile** : +91-9820738356  
**Email** : shohini.ganguly@gmail.com, jili1985@gmail.com  
**Affiliation** : Ramnarain Ruia College  
**Co Author(s)** : Shohini R.Ganguly, Hemangini A.Desai



## VALUE ADDITION STUDIES ON FLOUR USING VEGETABLE SEEDS: A BIOCHEMICAL AND NUTRITIONAL PERSPECTIVE

\*Dr. Jyoti D. Vora, Head  
Rohit B. Kamat, Pranali M. Phansekar  
Department of Biochemistry & Food Science and Quality Control,  
Ramnarain Ruia College, Matunga, Mumbai

**Keywords:** Flour, okra, bitter melon, fortification, organoleptic analysis, nutraceutical.

Cereals are important sources of plant protein throughout the world. Wheat constitutes about 90% of the cereals consumed around the world and is the staple dietary constituent in India. Wheat flour is not a 'complete' food by itself as it lacks various proteins and essential amino acids like lysine and tryptophan. Therefore, there is an urgent need to develop a low-cost, sustainable yet commercially feasible fortification formula to improve the nutritional composition of flour for mass consumption. Okra (*Abelmoschus esculentus* L) and Bitter melon (*Momordica charantia*) are widely cultivated and consumed as fresh vegetables in both temperate and tropical countries. The mature seed is known to have superior nutritional and medicinal properties. The seed are rich source of proteins, minerals and dietary fibers. The high percentage of linoleic acid (42%) makes the okra seed oil desirable and the amino acid pattern of the protein renders it an adequate supplement to legume or cereal based diets while bitter melon seeds have been shown to have anti-diabetic and anti-lipolytic and lipogenic activities. Thus, okra seeds and bitter melon seeds can be an inexpensive, ubiquitous and nutraceutical as a 'fortificant'. The main objective of the study was to improve the nutritive composition of wheat flour by fortification with the two seed meal to overcome malnutrition, to compare and contrast the shelf life of fortified flour with unfortified flour and to assess the organoleptic profile of the finished products made from the flour. Branded wheat flour was fortified with 20% roasted okra seed meals and 25% roasted bitter melon seed meals. The results showed an increased Ash content by 2–5 fold. The carbohydrate and protein content of the fortified samples were increased by 10-12% and 4-5%, respectively. The fortified sample was found to be as stable as unfortified sample at room temperature. The fortified samples also had higher sensory scores for colour, taste, appearance, texture, consistency, crispness. Summing up, value addition of flour was a success and can be extrapolated for commercial usage for the masses.

### Contact:

Dr. (Mrs.) Jyoti D. Vora – drjyotivora@yahoo.co.uk  
Rohit B. Kamat – rohitkamat26@yahoo.co.in  
Pranali M. Phansekar – pranali\_17@hotmail.com

**Poster Presenter** : **Rohit B. Kamat, Pranali M. Phansekar**  
**Address** : Department of Biochemistry and Food Science & Quality Control, Ramnarain Ruia College, Matunga, Mumbai-400019  
**Tel** : 022-24143098 Extn 159  
**Mobile** : +91-9870504269/ + 91-9820509548  
**Email** : purelypj17@gmail.com  
**Affiliation** : Ramnarain Ruia College  
**Co Author(s)** : Rohit B. Kamat, Pranali M. Phansekar



## BIOCHEMICAL & NUTRITIONAL STUDIES ON GERMINATION PROFILE OF TWO LEGUMINOUS SPECIES

Dr. (Mrs.) Jyoti D.Vora, Head/Guide  
Priyanka G. Gokhale, Priyadarshini S.  
Department of Biochemistry and Food Science & Quality Control,  
Ramnarain Ruia College.

**Key words:** Nutraceuticals, Legumes, Germination, Nutrient analysis, Mobilization, Organoleptic analysis, VFM.

Leguminous sprouts are known as a nutritional wonder and have been traditionally used for thousands of years all over the world as the main source of proteins. They are also widely used as health enhancers. Seeds of two leguminous plant species, *Vigna radiata* viz. Mung beans and *Trigonella foenum graecum* L. viz. Methi were chosen for the study. These two legumes are widely known for their immense medicinal properties, proving them to be perfect examples of 'Nutraceuticals'. To substantiate this, the proximate profiles of Carbohydrate, Minerals, Lipid and Dietary fiber were analyzed over 0 hours, 8 hours, 16 hours and 24 hours of germination. The study showed a linear increase in Carbohydrates, Calcium, Phosphorus and Iron content with the time of germination. It follows that the process of germination promotes the overall metabolic activity in the leguminous seed leading to the increase in its overall constitutive components. At the same time the composition of Dietary fiber and Lipid was lowered which implies that the reserved food material and non-bioavailable moieties were mobilized during germination to help in the growth of the plant. Encouraging results were obtained to conclude that leguminous sprouts are rich in various other nutritional factors along with proteins. In order to project the organoleptic appeal of the nutritive sprouts under study, invasive and non-invasive sensory evaluation was carried out with a semi-trained panel. This was executed with two recipes each of Mung and Methi, one from unprocessed sample and other from germinated sample. The data was subjected to biostatistical analysis which proved that the recipes from germinated samples of both Mung and Methi were very well accepted. The commercial appeal of the sprouts was also speculated using Value for Money (VFM) studies. The germinated and sprouted variations of both the legumes are hence better in nutritional, sensory as well as commercial perspective. Future objectives of the research are being defined.

### Contact:

Dr. (Mrs.) Jyoti D. Vora (drjyotivora@yahoo.co.uk)  
\* Priyanka G. Gokhale (gokhale.priyanka@gmail.com)  
\* Priyadarshini S. (vedapriya86@gmail.com)

**Poster Presenter** : **Priyanka G. Gokhale, Priyadarshini S.**  
**Address** : Department of Biochemistry and Food Science & Quality Control, Ramnarain Ruia College, Matunga, Mumbai-400019  
**Tel** : 022-24143098 Extn 159  
**Mobile** : +91-9892059563/+91-9833752625  
**Email** : gokhale.priyanka@gmail.com, vedapriya6@gmail.com  
**Affiliation** : Ramnarain Ruia College  
**Co Author(s)** : Priyanka G. Gokhale, Priyadarshini S.



## CNS DEPRESSANT ACTIVITY OF AQUEOUS & ALCOHOL ROOT EXTRACT OF PERGULARIA DAEMIA (FORSK.) CHIOV.

Lokesh Nikajoo

Olive lifesciences Pvt Ltd. Bangalore-560003, India.

E-mail: saklokesh@gmail.com, lokesh@olivelifesciences.com

*Pergularia daemia* (Forsk.) Chiov. is known as Uttaravaruni and Yugaphala in Sanskrit, is an important medicinal plant belonging to the family Asclepiadaceae. Now a day's medicinal plants are gaining importance due to their therapeutic properties and are used in various nutraceutical formulations. The present study was undertaken to evaluate the CNS depressant activity on the roots of *Pergularia daemia* (Forsk.) Chiov. CNS depressant activity was performed on swiss albino mice using locomotor activity by digital actophotometer and pentobarbitone sodium induced sleeping time. Comparison was done between the control and drug treated groups using Tukey kramer multiple comparison test. Locomotor activity of aqueous and alcohol extract were reduced when compared with control and showed significant ( $p < 0.001$ ) CNS depressant activity. CNS depressant activity was performed using pentobarbitone induced sleeping time. Aqueous and alcohol extracts (both at doses of 500 mg/kg and 1000 mg/kg) showed significant CNS depressant activity.

Keywords: *Pergularia daemia*, roots, CNS depressant activity.

**Poster Presenter** : **Lokesh Nikajoo**  
Address : # 32, 4th Floor, Anjana Complex, Vyalikaval  
Bangalore-560003  
Tel : +91-080-64521494  
Fax : +91-080-41699382  
Mobile : +91- 9448928478  
Email : saklokesh@gmail.com, lokesh@olivelifesciences.com  
Affiliation : Olive lifesciences Pvt Ltd



---

## DRINKING TEA: POTENTIAL HEALTH BENEFITS

---

Pradeep Dwivedi ,Makarand Parturker  
Department of Research & Development  
Organic India Private Limited, Kamta, P.O. Chinhat, Faizabad Road, Lucknow – 227 105, India  
Phone: +91-9956296619/+91-,9336614485  
E-mail: pradeep@organicindia.com, makarand@organicindia.com  
Organic India Communication No –OI-R&D/114/07-2007

The Health benefits of tea have been linked to its poly phenols (Flavonoids) contents .These naturally occurring compounds are believed to have antioxidant properties, neutralizing free radicals, damaging tissues , in the body, genetic material ,lipid and thereby contributing to on set of chronic diseases . Tea drinking has been associated with oral health, bone health ,flavonoids may lower the risk of certain cancers by inhibiting oxidative damage in DNA from free radical ,promote programmed cell death or apoptosis ,inhibit the rate of cell division thereby decreasing the growth of abnormal cells .Flavonoids may play a role in reducing the risk Cardiovascular diseases by decreasing lipid per oxidation and reducing the instances of heart attacks ,stroke, compounds other than flavonoids have been to show to support the human immune system.

Tulsi (Holi basil) tea valued in India for over 5000 years for its restorative and stress relieving properties for its body ,mind,sprit noted for promoting calmness, clarity and steaming ,balanching.Metabolism and strengthening the immune system .In This communication authors have tried to impress upon the benefits of tea drinking both Black/Green and holi Basil Tulsi Tea drinking . Focusing potential health benefits (Medicinal value) of Tulsi Tea.

**Key Words :** Antioxidants,Flavonoids,Eugenol,CHD,CVD,LDL,Immune Modulator ,Anti flammatory, Adaptogens, Obesity, Cancer, Tulsi Tea, Green and Black Tea

**Poster Presenter :** Pradeep Dwivedi  
**Address :** Department of Research & Development Organic India Private Limited, Kamta, P.O. Chinhat, Faizabad Road, Lucknow-227105  
**Tel :** 0522-2702101  
**Fax :** 0522-2701395  
**Mobile :** +91-9956296619  
**Email :** pradeep@organicindia.com  
**Affiliation :** Organic India private Ltd  
**Co Author(s) :** Makarand Parturker, Adarsh Agnihotri, U.K.Tiwari



---

## CAMEL MILK-A NUTRACEUTICAL HEALTH D

---

Gorakh Mal and K.M.L. Pathak

National Research Centre on Camel, P.B. No.07, Bikaner, Rajasthan 334001 India

In the arid areas where other livestock finds difficult to survive, camel have the potential of milk production. Indian camel can produce milk up to 5-6 liters/day and have a lactation length of 14-16 months. Camel milk is opaque white in color with normal odour and salty taste. The chemical composition of camel milk reveals higher pH, protein, casein, fat and total solids in the late phase of lactation. The macro-minerals composition reveals higher levels of sodium, potassium, calcium, phosphorus and magnesium in late phase of lactation. Trace minerals viz., iron, zinc, and copper are high in camel milk compared to bovine milk. The camel milk contains higher concentration of lactoferrin and lysozyme than bovine milk. The vitamin-C content in camel milk is three fold higher compared to cow milk. Higher content of long chain fatty acids are present in camel milk. Camel milk can be stored up to 8 hours at room temperature. It exhibits hypoglycemic effect when given as an adjunctive therapy, which might be due to presence of insulin/insulin like protein. It can also be utilized as an adjunct/supplement among tuberculosis patients. Various camel milk products are prepared and commercialized at this research Centre viz. ice cream/kulfi with different flavors, flavored milk, fermented milk, tea and coffee. Recently, camel milk skin cream is developed and its evaluation for anti-wrinkling properties is under trial. Thus, camel milk possesses nutritive as well as medicinal properties and which can be considered as a nutraceutical health drink in the drought prone arid areas.

**Poster Presenter** : **Gorakh Mal**  
Address : (Animal Biochemistry), National Research Centre on Camel, PB. No. 07, Bikaner, Rajasthan-0334001  
Tel : 0151-2231213  
Fax : 0151-2231213, 2230183  
Mobile : +91-9828315254  
Email : gorakh14@yahoo.com  
Affiliation : National Research Centre on Camel  
Co Author(s) : K.M.L. Pathak



## IMPORTANCE OF FRAP, RSA ANTIOXIDANT PARAMETERS FOR USE OF PUNICA EXTRACT AS NUTRACEUTICAL FOR HUMAN HEALTH

Suaib Luqman, Ritesh Kumar, Shubhangi Kaushik, Suchita Srivastava, Mahendra P Darokar, Suman P S Khanuja

Genetic Resources and Biotechnology Division, Central Institute of Medicinal and Aromatic Plants (CSIR), P.O. CIMAP, Lucknow- 226015, India.

*Punica granatum* L. (Family: Punicaceae), commonly known as pomegranate (Anar) has been used traditionally as medicine to treat diarrhoea, fevers, intestinal parasites etc. Its active constituent namely: Punicotannic Acid, Punicic acid, Gallic Acid, Mannite, Pelletierine, N-Methylisopelletierine, Ellagitannins, Pelargonidin, Punicalin, Punicalagin, Anthocyanins, Cyanidin and Ellagic Acid possess antioxidant, anti-ageing, anti-viral, anti-osteoarthritis, anti-atherosclerotic, anti-hepatotoxic, anti-tumor, anti-angiogenic, hypolipidemic properties. However, little is known about the antioxidant potential of pomegranate fruit peel which is otherwise considered as waste. Therefore, we investigated the concentration-dependent ferric reducing, radical scavenging and protective effect of peel and seed (rind) extract on erythrocytes lipid peroxidation and reduced glutathione concentration of peel extract of pomegranate and compared it with that of seed (rind) and standard antioxidant. A positive co-relation was observed between FRAP, RSA, TPC and RP of pomegranate peel and rind. A significant protective effect of extract (100 g/mL) was also observed in erythrocytes reduced glutathione (GSH) and malondialdehyde (MDA) concentration after subjecting erythrocytes to oxidative stress by incubating them with tert-butyl hydroperoxide (t-BHP) and hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>). Based on our observations, it may be inferred that pomegranate extract especially from the spent/waste part can be used as dietary/supplementary antioxidant in nutraceutical and/or cosmoceutical for protection against complications arising from the oxidative stress and as economically viable source of natural and potent antioxidant. The importance of FRAP, RSA antioxidant parameters in pomegranate nutraceutical products is suggested and implications of this strategy may be generalized for the optimization of nutraceutical preparations from other medicinal plants as well.

Acknowledgements: This work is supported by Department of Science and Technology, Ministry of Science and Technology, Government of India under DST-Fast Track Scheme for Young Scientist to SL.

**Poster Presenter** : **Suaib Luqman**  
Address : Genetic Resources and Biotechnology Division,  
Central Institute of Medicinal and Aromatic Plants (CSIR),  
Lucknow-226015  
Tel : 0522-2717529  
Fax : 0522-2342666  
Mobile : +91-9450904995  
Email : suaibluqman@yahoo.com  
Affiliation : Central Institute of Medicinal and Aromatic Plants



## EFFECT OF GREEN TEA AND COCOA POWDER INTERVENTION ON LIPID AND OXIDATIVE STRESS IN HIGH FAT FED ALBINO RATS.

Sharma.S; Chauhan.K; Dua.A;

Dept. of Food Science & Nutrition Banasthali University Rajasthan.

Shivam\_kim@yahoo.com

Indians are genetically more susceptible to coronary heart disease (CHD), studies indicate that genesis of this disease is early in life which progress through several stages before getting clinically manifested in adulthood. The confluence of dietary errors and improper life style practices has aggravated the present epidemic. Despite considerable progress in the management of CHD, by synthetic drugs, the searches for natural hypolipidemic agents are still in experimental stage. The present study investigated the effect of supplementation of Green tea & Cocoa powder on lipid profile and oxidative stress in albino rats.

The study encompassed two phases with first involving maintaining albino rats on Green tea & Cocoa powder to see its effect as positive modulators of high fat, high cholesterol induced changes in lipid & oxidative stress status. The rats were divided into four groups (n = 24) .Group A served as control; Group B was supplemented with high fat high cholesterol diet; Group C was supplemented with high fat high cholesterol and Green tea (1 g/ kg body weight) diet; Group D was supplemented with high fat high cholesterol and Cocoa powder (1 g/ kg body weight) diet; for a period of 45 days. The second phase involved biochemical estimations (lipid profile) before and after supplementation. For oxidative stress the parameters estimated were catalase, glutathione peroxidase, and lipid per oxidation and reduced glutathione.

The results indicated no significant effect of Green tea & Cocoa powder on the body weight, liver weight and food intake of all the rats. However there was significant decrease in serum and hepatic total cholesterol, LDL-C, triglycerides and increase in HDL-C in group C & D as compared to group B.

Thus Green tea & Cocoa powder was effective in controlling blood lipids & oxidative stress. A long term evaluation is required in order to study the impact of these supplements to bring about the clear picture of improvement in CHD in response to these two.

**Poster Presenter** : **Komal Chauhan**  
Address : Maitreye block-i house no. 1002, Banasthali University  
Rajasthan, Tonk Rajasthan - 304 022  
Tel : 01438 228902  
Email : shivam\_kim@yahoo.com  
Affiliation : Banasthali University Rajasthan  
Co Author(s) : Sheel Sharma, Alka Dua



## NUTRACEUTICAL POTENTIAL OF MUCILAGE POLYSACCHARIDES FROM TUBERS OF AROIDS AND YAMS

Bala Nambisan  
Central Tuber Crops Research Institute  
Sreekariyam, Thiruvananthapuram, Kerala - 695017  
balanambisan@yahoo.co.uk

Aroid and yam tubers (*Colocasia*, *Xanthosoma*, *Amorphophallus* and *Dioscorea esculenta*, *D. alata*, *D. rotundata*) are widely cultivated in tropical regions for their starchy tubers/ corms. In addition to starch, these tubers also synthesize a large variety of non starch polysaccharides/mucilage. Such plant derived non starch polysaccharides( NSP) have emerged as an important class of bioactive natural products, which exhibit biological activities such as anti tumor, immunostimulant, anti complement, anti inflammatory, anti oxidant etc. The NSPs are a group of macromolecules characterized by a high proportion of carbohydrates in which arabinose, galactose and mannose are predominant. This paper focuses on the isolation, purification and characterization of mucilages from aroid and yams, and evaluation of properties such as viscosity, digestibility, and bio activity ( anti oxidant, anti inflammatory, lipid lowering)

Crude mucilage was isolated from the different tubers with an average yield of 1 – 2 % fresh weight and carbohydrate content of approx 80% dry weight . The same was purified using ion exchange chromatography and gel filtration. .The major polysaccharides present in the mucilage of *Colocasia* and *Xanthosoma* were arabinogalactans, in *Amorphophallus*, glucomannan and in *Dioscorea*, mannans. All mucilages were stable to heat ( 1000C). and showed maximum viscosity at neutral pH .They were observed to be resistant to hydrolysis by  $\alpha$ -amylase, trypsin and chymotrypsin. Crude mucilage preparations inhibited salivary amylase. They displayed anti inflammatory activity ( 40 – 50% inhibition of oedema at a dosage of 20mg/100g body weight) when evaluated by the carrageenan rat paw oedema test. Significant antioxidant activity , measured in terms of DPPH scavenging activity was also observed in all mucilages. *D. esculenta* and *C. esculenta* mucilage exhibited significant lipid lowering action ( 40 – 44 % reduction in serum triglycerides in experimental albino rats).

Further studies on the immunological, anti infective , physiological and lipid lowering activity of mucilages are necessary in order to have a complete understanding of their health benefits so that they can be commercially exploited for nutraceutical and pharmaceutical compositions.

<b>Poster Presenter</b>	:	<b>Bala Nambisan</b>
Address	:	Sreekariyam, Thiruvananthapuram - 695 017
Tel	:	0471-2598551-4
Fax	:	0471-2590063
Mobile	:	0-9847322514
Email	:	balanambisan@yahoo.co.uk
Affiliation	:	Central Tuber Crops Research Institute



---

## ANTIOXIDATIVE NUTRACEUTICALS AND HUMAN HEALTH- A REVIEW

---

Anil S. Nandane  
Dept of Food Processing Technology  
A.D. Patel Institute of Technology  
P.O. Box 52, New Vallabh Vidyanagar,  
Anand, Gujarat 388121

Aging is the accumulation process of diverse detrimental changes in the cells and tissues with advancing age, resulting in an increase in the risks of disease and death. As aging proceeds, the efficiency of antioxidant defense systems lowers, and the ability to remove deleterious reactive oxygen species and free radicals decreases. Theories explaining aging processes are diverse, including disease, environment, immune dysfunction, inborn processes, and free radicals. Antioxidative nutraceuticals can inhibit or slow the formation of free alkyl radicals in the initiation step and interrupt the free-radical chain reactions in the propagation step during lipid oxidation. Antioxidative nutraceuticals can be antioxidative enzymes, hydrogen donating compounds, metal chelators, and singlet oxygen quenchers. Bioavailability of antioxidative nutraceuticals is influenced by many factors, including types of nutraceuticals, geometric isomers, processing methods, and matrices surrounding the compounds. Fruits, vegetables, spices, herbs, and beverages such as tea and wine are typical foods containing various antioxidative nutraceuticals. The increased concentration of dietary foods containing antioxidative nutraceuticals with 3 to 5 servings from the vegetable group and 2 to 4 servings from the fruit group (USDA/CNPP 2000) can help humans reduce the deleterious reactive oxygen species and free radicals, and balance the oxidative stress to slow the aging process.

**Poster Presenter** : **Anil S. Nandane**  
Address : Dept of Food Processing Technology,  
P.O. Box 52, New Vallabh Vidyanagar, Anand - 388 121  
Mobile : 0-9924947589  
Email : anilnandane@rediffmail.com  
Affiliation : A.D. Patel Institute of Technology



## ROLE OF FORMULATION DEVELOPMENT IN HARNESSING THERAPEUTIC BENEFITS OF NUTRACEUTICALS: CASE STUDY OF GARLIC

Ravindra R.P.

C.U. Shah College of Pharmacy, SNDT Women's University,  
Juhu Road, Santacruz (W), Mumbai –400049  
Email: ravindrarp@gmail.com

**Introduction:** The role of nutraceuticals in correcting/ameliorating metabolic disorders, lifestyle diseases and in reducing serious side effects of therapies has been well documented. But the actual number of nutraceuticals preparations converting such documented properties into well-established therapeutic benefits is negligibly low. Garlic (*Allium sativum* Linn. F- Liliaceae) is effective in treatment of cardiovascular and other metabolic diseases, and its antibiotic, antihyperlipidemic properties (among others) have been established through randomized clinical trials (RCTs). However, administration of a daily effective dose of 3-5 Gms has to overcome problems like unpleasant odor, taste, gastric distress and degradation of allicin, its active ingredient at the gastric pH. Its constituents being sensitive to minor alterations in process and formulation variables, formulation development poses a challenge to the formulators. Moreover, most of its commercially available products like steam distilled oil, aged extract, tincture, or raw powder contain only a fraction of its potent constituents.

**Objective:** To formulate stable and elegant garlic preparations incorporating sufficiently high dose for oral use and overcoming the abovementioned limitations.

**Methodology:** a. Enteric coated garlic tablets: All unit operations from drying to coating were optimized to minimize loss of thermolabile allicin. Tablets (500/600mg) were formulated by wet granulation using non-aqueous solvent, using anhydrous excipients. Totally 18 formulations were prepared to study the effect of adsorbents, glidants and disintegrants and the best formulation was subjected to enteric-coating. Granules, compressed tablets and enteric-coated tablets were evaluated using standard parameters.  
b. Multi-phase microdispersion: A stable, elegant microdispersion of processed garlic was prepared through the application of factorial design using suitable excipients, the process parameters being monitored to minimize loss of thermosensitive diallylsulfides.

**Results:** Elegant enteric-coated garlic tablets were successfully developed, (Disintegration time: 12 min only in intestinal fluids, Release in 1 hr: 60-75%). The microdispersion (globule size 500- 700 nm, with pleasant taste and total masking of odor) contains both water-soluble and oil-soluble constituents. Both formulations exhibited antibiotic activity against *E. coli* and *S. aureus*. Stability studies and testing of their other properties is in process.

**Conclusion:** Enteric –coated garlic tablets, a product of huge international demand, but unavailable in Indian market was successfully developed. The microdispersion is a novel product, reported for the first time in international literature.

**Poster Presenter** : **Ravindra R.P**  
**Address** : SNDT Women's University, Juhu Road, Santacruz (W),  
Mumbai- 400049  
**Tel** : 91-22-26608551  
**Fax** : 91-22-26603968  
**Mobile** : 0-9869087883  
**Email** : ravindrarp@gmail.com  
**Affiliation** : C.U. Shah College of Pharmacy



---

## DESIGN AND DEVELOPMENT OF FUNCTIONAL FOOD BASED ON CERTAIN PIGMENTED VARIETIES OF RICE OF NE REGION OF INDIA TO HELP COMBAT DIET AND LIFESTYLE RELATED DISEASES

---

PK Goswami. PK Chowdhury. Aradhana Goswami & PG Rao  
North-East Institute of Science & Technology. Jorhat 785006. Assam. India.

Cereals and cereal based products is one of the most important areas of considerations of food processing industry. Foods from this category form the major components of diets around the world. This specially true in case of developing countries where dietary diversity is limited. On average cereals provide about 55% of calorie intake globally. Rice ( *Oryza Sativa L.* ) is also the staple food in our country. The pigmented variety of rice growing abundantly in North Eastern part of India seem to be promising in designing and promising functional food to combat Diet and Lifestyle Related Diseases. Pigmented rice having dark purple colored grain is broadly known as enriched rice with organolaptic properties because of the presence of Anthocyanin and Arabinoxylan. Anthocyanin is phenolic compounds and regarded as water soluble natural pigment with antioxidant and anti-inflammatory properties. On the other hand Arabinoxylan is one of the most effective dietary fibers which is known to prevent colon cancer. Therefore these rice varieties may find use as potent antioxidant and anti-inflammatory agent through properly designing to a nutritional food or as food colourants in bread, ice cream and liquor etc or in some traditional foods. It is due to the fact that because of our dietary habits lots of oxygen radicals are formed in our body and the bioactive component in anthocyanin pigmented rice have got radical absorbing capacity to destroy free oxygen radicals and thus preventing formation of cancerous cells..

**Poster Presenter** : **PK Goswami and PK Chowdhury**  
Address : NEIST Jorhat 785006  
Tel : 91-376 2370121  
Fax : 91-376 -2370011  
Mobile : 9435352501  
Email : goswamip@rrljorhat.res.in, pritishchowdhury@yahoo.com  
Affiliation : North-East Institute of Science & Technology



---

## COMPARATIVE EVALUATION OF EFFECTS OF GROUND FLAXSEED (LINUM USSITATISSIMUM), FLAX OIL AND ATORVASTATIN ON ENDOTHELIAL CELLS.

---

Authors: Ghorpade SA\*, Trivedi VS, Gala PM, Rege NN.

Institution: Ayurveda Research Center, Department of Pharmacology & Therapeutics, Seth GS Medical College & KEM Hospital, Parel, Mumbai-12.

Address for correspondence: drsunny.ghorpade@gmail.com, Mo. No. 9970846151

**Objective:** To compare effects of ground flaxseed, flax oil and atorvastatin on endothelial cells in terms of Nitric Oxide (NO) release and their interaction with monocytes.

**Methodology:** 32 rats were randomized into test and control groups. The test groups received either atorvastatin (50 mg/kg orally), flax oil (1.8 gm/kg) or ground flaxseed mixed in diet (2.34 gm/kg) for 21 days, following which blood was collected to separate sera for further study. Human umbilical vein endothelial cells (HUVECs) were incubated with sera samples and NO release was estimated. To study interaction of HUVECs with monocytes, co-culture of HUVECs and smooth muscle cells were incubated with sera in presence of LDL. Supernatants were separated and using Neuroprobe chamber chemotaxis of monocyte towards supernatants was counted as monocytes migrated per HPF. Co-culture supernatants were incubated with HUVECs and monocytes to count the number of adherent monocytes to HUVECs.

**Results:** Atorvastatin significantly increased NO release by HUVECs ( $46.92 \pm 10.19 \mu\text{M/ml}$ ). Maximum NO release however was seen when HUVECs were incubated with sera of rats given ground flaxseed ( $138.66 \pm 17.21 \mu\text{M/ml}$  vs flax oil:  $123.91 \pm 17.94$  and atorvastatin;  $p < 0.001$ ). Flaxseed and Flax oil reduced chemotaxis and adhesion of monocytes to HUVECs and the results were comparable to atorvastatin.

**Conclusion:** All the three agents prevented interaction of monocytes with endothelial cells. Moreover, significantly higher release of NO from endothelial cells was seen with ground flaxseed mixed with diet than flax oil and atorvastatin. This study proves beneficial effects of flax seed, a cheap and easily available alternative for flax oil, on endothelial cells.

**Poster Presenter** : **Sanman Ghorpade**  
**Address** : Ayurveda Research Centre, Mortuary building,  
2nd floor, Seth GS Medical, College & KEM Hospital,  
Parel, Mumbai – 400 012  
**Tel** : 022- 2418 1744  
**Fax** : 022- 2412 1711  
**Mobile** : 0-9970846151  
**Email** : drsunny.ghorpade@gmail.com  
**Affiliation** : Seth GS Medical College & KEM Hospital  
**Co Author(s)** : Vandana Trivedi, Priyal Gala and Sadhana Babar



---

## **EXHIBITORS' DIRECTORY**

---



---

## AGRON INDIA (PVT) LIMITED

---

Name of the Exhibitor : Agron India (Pvt) Limited

Address : F - 103, Nahar Seth Industrial Estate  
Cardinal Gracius Road, Chakala,  
Andheri (East), Mumbai - 400 093, India

Contact Person : Dr. Vijay Pratap Kushvaha

Designation : Vice President (R & D)

Phone No : +91-22-6742 1000

Mobile No : +91-98675 13201

Fax No : +91-22-6742 1030

Email : vkushvaha@agron-india.com

Website : www.naturonworld.com

**Company Profile :**

Manufacturing and Marketing of Nutraceuticals, Ayurvedic Medicine, Hair Oil, Ayurvedic Cosmetics importers and exporters.



---

## AMERICAN SOYBEAN ASSOCIATION - INTERNATIONAL MARKETING

---

Name of the Exhibitor : American Soybean Association - International Marketing

Address : American Soybean Association - International Marketing  
Spanish Court, 301 A, Third Floor, C 1 Block, Palam Vihar  
Gurgaon -122017 (Haryana), India

Contact Person : Dr. Suresh Itapu  
Designation : Global Technical Director (Human Nutrition), ASA-IM  
Mobile No : +91-93126 87046  
Email : [sitapu@asaimasc.org](mailto:sitapu@asaimasc.org)

Contact Person : Ricky Thaper  
Designation : Consultant, ASA-IM  
Mobile : +91-98100 16293  
Email : [ricky@asaimasc.org](mailto:ricky@asaimasc.org)

Phone No : +91-124- 4259591, 4259592, 4259593

Fax No : +91-124 - 4259594

Website : [www.asaimasc.org](http://www.asaimasc.org)

### **Company Profile** :

American Soybean Association – International Marketing, a non-profit, single commodity organization of US soybean farmers and other interested in the soybean industry, with its headquarters in St. Louis, Missouri, USA, has eight offices worldwide serving eighty countries, for developing markets for soybean products.

ASA-IM, Asia Subcontinent office based in Gurgaon (NCR), regularly conducts technical seminars and workshops to promote utilization of soy products in Human food and Livestock industries. To know more about activities Soy in Food, kindly visit website, [www.asaimasc.org](http://www.asaimasc.org) or email to Dr. Suresh Itapu, Global Technical Director (Human Nutrition) at [sitapu@asaimasc.org](mailto:sitapu@asaimasc.org)



---

## AMWAY INDIA ENTERPRISES PVT. LTD

---

Name of the Exhibitor : Amway India Enterprises Pvt. Ltd

Address : Landmark A-Wing ,  
Andheri Kurla Road, Andheri East  
Mumbai- 400 093, India

Contact Person : Arlene Karanjia

Designation : Regional Training Manager

Phone No : +91-22-6668 1527

Mobile No : +91-99872 58691

Fax No : +91-22-6668 1666

Email : arlene\_karanjia@amway.com

Website : www.amwayindia.com

### **Company Profile :**

- Amway India is a wholly owned subsidiary of US \$ 6.4 billion Amway Corporation, Ada, Michigan, USA. Amway Corporation is one of the largest Direct Selling companies in the world. It has a presence in 88 countries & territories.
- Amway India recorded a sales turnover of over Rs.799/- crore during last end December 2007.
- At present, Amway India offers 80 products in four categories. They are Personal care category, Home Care category, Nutrition & Wellness category and Cosmetics category.
- The products match Amway's global quality standards and a '100 per cent Money Back Guarantee'. If not completely satisfied with the product, the consumer can return it for a refund.



---

## ARJUNA NATRUAL EXTRACTS LTD

---

Name of the Exhibitor : Arjuna Natural Extracts Ltd.  
Address : Bank Road, Aluva - 683 101  
Kerala, India  
Contact Person : P. Ramachandran  
Designation : Manager - Commercial  
Phone No : +91-484-2622644 / 2622655  
Mobile No : +91-94470 86760  
Fax No : +91-484-2622612  
Email : mail@arjunanatural.com  
Website : www.arjunanatural.com

**Company Profile :**

Arjuna Natural Extracts Ltd is a global manufacturer and exporter of Standardized Herbal and Spice Extracts, specialized Essential Oils and Omega 3 fatty acids from marine and vegetable source, in Oil, Powder, Emulsion, Capsule and Tablet forms. With 15 years excellence in this Industry, we are driven by the philosophy that centers on producing exceptional product quality and ensuring ultimate customer satisfaction.



---

## ARUN & CO.

---

Name of the Exhibitor : Arun & Co.

Address : 603/B, Polaris, off Marol Maroshi Rd,  
Bh Sangeet Plaza, Marol, Andheri (East),  
Mumbai – 400 059. India

Contact Person : Mr. Rashesh Doshi

Designation : Director

Phone No : +91-22-6772 3000

Fax No : +91-22-6725 3399

Email : rashesh@zytex.net / pooja@zytex.net

Website : www.arunandco.com

**Company Profile :**

**Arun & co.**, established in in 1947. It has been pioneered for industrial enzymes since 1980. Arun & Co., has several partners and offering range of nutraceutical products mainly from Toyo Science Corporation, Japan one of the leading pioneers in nutraceutical and cosmetic ingredients, some of the products we can offer as : Enzymes, Probiotics, Fructo-Oligo Saccharide (FOS), Glucosour (Tasty Glucosamine) Gamma Tocopherol, Fucoidan, Gamma Oryzanol, Alpha lipoic acid, Ceramide, DAGE Phenoxyethanol, Tocopheryl, Tocotrienol, Hydrolysed Collagen.

Arun & Co. also has a tie-up for Probiotic with Lallemand Human Nutritions A/s, one of the leading Probiotic supplier in the world. Arun & Co's mission is to offer updated & innovated products & services to customers. Motto of our company is "Customer satisfaction is our satisfaction".



---

## AVESTHAGEN LTD

---

Name of the Exhibitor : Avesthagen Ltd

Address : Discoverer, 9<sup>th</sup> Floor,  
International Tech Park, Whitefield Road,  
Bangalore - 560 066, India

Contact Person : Sathish Kumar R.V.

Designation : Business Development Manager - BioNutrition

Phone No : +91-80-2841 1665

Mobile No : +91- 98860 50949

Fax No : +91-80-2841 8780

Email : sathishk@avesthagen.com

Website : www.avesthagen.com

### **Company Profile** :

Avesthagen is a leading integrated systems biology platform company that focuses on the convergence of food, pharma and population genetics leading to predictive, preventive, personalized healthcare. Avesthagen employs 500+ people worldwide and is headquartered in Bangalore, India.

Avesthagen has built and continues to build integrated, systems biology approach of capabilities, infrastructure and technology that allows for and facilitates 'cross talk' between numerous disciplines, leading to innovative solutions. The business model of the company is to combine IP & product development for long term sustainable revenue generation and value addition, with R&D services and collaborative research programs for/with other parties to generate revenue stream and market focus. It has four strategic business units - BioNutrition, Biopharma, BioAgriculture, Science and Innovation



---

## COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

---

Name of the Exhibitor : Council of Scientific & Industrial Research

Address : Anusandhan Bhawan,  
2, Raj Marg,  
New Delhi - 110 001, India

Contact Person : Dr. Daljit Singh Bedi

Designation : Scientist & Head, Unit for Science Dissemination

Phone No : +91-11-2371 5241

Fax No : +91-11-2335 6890

Email : [usd@csir.res.in](mailto:usd@csir.res.in)

Website : [www.csir.res.in](http://www.csir.res.in)

**Company Profile :**

R & D support to the industry in the various facets of Nutraceuticals, based on the competence and facilities available with CSIR. The various technologies / products / factories under major sub-heads, including nutraceuticals for cardiovascular functions, natural gums and Dietary fibers, Multifaceted health promoters, probiotic foods for gut health, bio activities from fruits & vegetables, Nutraceuticals from edible mushrooms, Nutro - Biscuits & Cakes, Health oils, Phytosterols, Algae technologies, natural Anti - oxidants, Nutraceuticals from spices, Diabetic- care products etc.



---

## DELEGATION OF THE EUROPEAN COMMISSION TO INDIA

---

Name of the Exhibitor : Delegation of the European Commission to India

Address : 65 Gold Links  
New Delhi - 110 003, India

Contact Person : Dr. Indraneel Ghose

Designation : Science and Technology Adviser

Phone No : +91-11-2462 9237

Fax No : +91-11-2462 9206

Email : [delegation-india@ec.europa.eu](mailto:delegation-india@ec.europa.eu)

Website : [www.delind.ec.europa.eu](http://www.delind.ec.europa.eu)

**Company Profile :**

Like other accredited foreign diplomatic missions, the Delegation of the European Commission to India represents the European Commission vis-a-vis the Government of India. We seeks to ensure a smooth and accurate flow of information between the European Commission and Indian authorities.

The Delegation manages the whole range of economic and development co-operation programmes supported by the EU in India (education, health, environment, trade and investment facilitation, Civil Society and NGO - related projects, science and technology, etc.). The Delegation therefore works closely with Union, State and local authorities, apex bodies, NGOs, and all relevant Indian partners.



---

## E.I.D. PARRY (INDIA) LTD - PARRY NUTRACEUTICALS DIVISION

---

Name of the Exhibitor : E.I.D. Parry (India) LTD – Parry Nutraceuticals Division

Address : Parry House, 5th Floor,  
# 43-Moore Street,  
Chennai - 600 001, India

Contact Person : T. K. Harish

Designation : Manager - Market Development

Phone No : +91-44-2530 6819 / 18

Mobile No : +91-99400 65313

Fax No : +91-44-2535 8114

Email : harishtk@parry.murugappa.com

Website : www.parrynutraceuticals.com

**Company Profile :**

100% Certified Organic Spirulina - Spray Dried Powder Certified Organic Spirulina tablets/ capsules  
Natural Mixed Carotenoids from Dunaliella salina - 1%, 2.5% & 7.5% powder, 10%, 15%, 20%, 30% Oil.  
Natural Astaxanthin from Haematococcus pluvialis: 1.5% Powder & 2.5% - 5% Oleoresins  
Natural Purified Lutein esters: 5% to 40% in Oil, Powder and Beadlet form  
Natural Zeaxanthin: 5% to 20% in Oil, Powder and Beadlet form  
XanRICH (Lutein with Zeaxanthin): 5% to 20% in Oil, Powder and Beadlet form  
Natural Lycopene: 3 % to 20 % Oil, Powder & Beadlet.  
Phycocyanin Powder  
Green Tea Leaf & Extracts: 95% Polyphenols / 50% EGCG to 40% Polyphenols (Water extracted)



---

## EXPORT-IMPORT BANK OF INDIA

---

Name of the Exhibitor : Export-Import Bank of India

Address : Centre One, Floor 21,  
World Trade Centre Complex  
Cuffe Parade, Mumbai – 400 005, India

Contact Person : Mr. Prahalathan Iyer  
Designation : Deputy General Manager  
Phone No : +91-22-2216 0364  
Mobile No : +91-98208 37532  
Email : prahalathan@eximbankindia.in

Contact Person : Mr. David Sinate  
Designation : General Manager  
Phone No : +91-22-2218 1852  
Fax No : +91-22-22182572  
Mobile No : +91-9820837527  
Email : dsinate@eximbankindia.in

Website : [www.eximbankindia.in](http://www.eximbankindia.in)

### **Company Profile :**

Export-Import Bank of India (Exim Bank) is the apex financial institution set up by an Act of Parliament to finance, facilitate and promote India's international trade. The Bank's vision has evolved from financing, facilitating and promoting trade and investment, to a conscious effort at creating export capabilities. With strong business fundamentals, Exim Bank proactively seeks to enhance the competitive edge of Indian companies in their internationalisation efforts by providing a range of financing, advisory and support services at all stages of the business cycle. Exim Bank also capacitates two-way technology transfer by financing import of technology into India and investment abroad by Indian companies for setting up joint ventures/subsidiaries.



---

## GRASSROOT PRODUCTS

---

Name of the Exhibitor : Grassroot Products

Address : A-116, Amar Gian Industrial Complex,  
Khopat Road, Thane (W) -400 601,  
Maharashtra, India

Contact Person : Mr. Kirti Kumar

Designation : President

Phone No : +91-22-2547 1959 / 2547 0282 ETXN: 23

Mobile No : +91-98211 37329

Fax No : +91-22-2547 1959

Email : [grassrootproducts@nutrivalue.us](mailto:grassrootproducts@nutrivalue.us) / [kirtikumar@nutrivalue.us](mailto:kirtikumar@nutrivalue.us)

Website : [www.nutrivalue.us](http://www.nutrivalue.us)

**Company Profile :**

Our company has been founded by Mrs. Manjiri Chunekar, a well known and extremely successful entrepreneur, who has earned several distinctive awards over the past years for her work and abilities. Having realized the scare availability of high quality health foods in today's market, this new foray into the food sector, with special focus on Nutraceuticals, was established with an aim to provide unique products with a high demand potential.



---

## HERBALIFE INTERNATIONAL INDIA PVT. LTD

---

Name of the Exhibitor : Herbalife International India Pvt. Ltd

Address : # 14, Vaswani Wilshire,  
Commissariat Road,  
Bangalore - 560 025, India

Contact Person : K.R Sridhar / Jyothi

Designation : Senior Sales Manager / Sr. Sales & Marketing Officer

Phone No : + 91-80-4031 1405 / 4031 1302

Mobile No : +91-98450 13255 / +91-98807 33888

Fax No : +91-80-4031 1334

Email : sridhar@herbalife.com / jyotim@herbalife.com

Website : www.herbalife.com

### **Company Profile :**

Herbalife is a premier nutrition and weight management company with a momentum of 27 years in Nutrition industry, present in 65 countries with innovative products backed by world-renowned scientists. The range of science-based weight management products, nutritional, energy and fitness supplements and personal care products helps to support a healthy lifestyle. The company pursues its global mission of 'changing people's lives' by way of marketing & selling its products through a global network of more than 1.5 million independent distributors. For those wishing to become distributors, the company also offers a financially rewarding business opportunity.



---

## KAWARLAL GROUP

---

Name of the Exhibitor : Kawarlal Group

Address : 41 Raghunayakulu Street, Chennai - 3,  
Tamil Nadu, India

Contact Person : V. Ramakrishnan

Designation : Marketing Manager

Phone No : +91- 44- 2535 2345, 2535 6050

Mobile No : +91-99406 73015

Fax No : +91-44- 25356171

Email : info@kawarlal.com\ mgi@kawarlal.com

Website : www.kawarlal.com

**Company Profile :**

India's Leading Importers of Food and Pharmaceutical ingredients since 1959  
Lactose, HPMC, PVP, Xanthan Gum, Sweeteners – Aspartame, Sucralose & Neotame, Mannitol, Flavours & Fragrances, Rheological Modifiers like Carbomers, Silicon Di-Oxide, Titanium Di-Oxide, Micro Crystalline Cellulose (MCC),



---

## K. PATEL PHYTO EXTRACTIONS PVT. LTD

---

Name of the Exhibitor : K. Patel Phyto Extractions Pvt. Ltd

Address : A / 101, Alaknanda, Anna Saheb Vartak Marg,  
Tps Lii, Broivali (West),  
Mumbai - 400 092, India

Contact Person : Hitesh G. Patel

Designation : Managing Director

Phone No : +91-22-2899 4142 / 2898 1431 / 2898 6324 / 2898 1850

Fax No : +91-22-2898 6067 / 2899 0583

Email : [info@phytoextractskp.com](mailto:info@phytoextractskp.com)

Website : [www.phytoextractskp.com](http://www.phytoextractskp.com)

### **Company Profile** :

**Herbal Extracts** : Adhatoda Vasica, Andrographis Paniculata, Asparagus Racemosus, Asphalt, Azadirachta Indica, Baccopa Monnieri, Boswellia Serrata, Camellia Sinesis, Cassia Angustifolia, Centalla Asiatica, Chlorophytum Borivilianum, Coleus Forskohili, Commiphora Mukul, Eclipta Alba, Emblica Officinalls, Garcinia Cambogia, Garcinia Mangostana, Gl Ycyrrhiza Glabra, Gymema Sylvestre, Lagerstromia Speciosa, Momordica Charantia, Morinda Citrifolia, Mucuna Pruriens, Nardostachys Grandiflora, Ocimum Sanctum, Picorrhiza Kurroa, Phyllanthus Amarus, saraca Indica, Sida Cordi Folia, Terminalia Chebula, Trifla, Trifolium Alexandrianum, Tribulus Trrestris. Trigon Ella Foenum - Graceum, Valeriana Wallichii, white Kidney Bean, Withania Somnifera.

**Phytochemicals:** Capsaicin, Curcumin, Forskohlln, Guggulsterones, Methoxsalen, Piperine, Pol Ycosanol, Raubasine, Solanesol.

**Oleoresins:** Ginger, Lutein, Marigold, Paprica, Turmeric.



---

## MISSION VIVACARE LTD.

---

Name of the Exhibitor : Mission Vivacare Ltd.

Address : 901-A, Raheja Plaza, L.B.s. Marg,  
Ghatkopar (W), Mumbai - 400 086, India

Contact Person : Mr. Akkshay G. Mehta

Designation : Managing Director

Phone No : +91-22-6647 7466

Mobile No : +91-98201 47069

Fax No : +91-22-6647 7477

Email : agm@missionvivacare.com

Website : www.missionvivacare.com

**Company Profile :**

Mission Vivacare Limited is a dynamic Health Products Company. The Company has been in this business since the last 16 years and is lead by Experts who have been active in this Industry since 1947.

The company manufactures and exports a wide range of formulations across therapeutic segments. Mission has a presence in more than 25 countries in Asia, Africa and South America. Mission has now developed a strong product portfolio in the OTC and Lifestyle Products Segment with a growing emphasis on their Nutraceutical Brands. The flexibility in Strategy has ensured the success of Mission in its target markets.

In the exports business, regulatory capabilities are a key competitive advantage. Mission has strong regulatory filing capability and has product registrations in more than 30 countries.

For future growth, the company plans to enter the regulated markets of USA and Europe by setting up a USFDA / MHRA approvable manufacturing facility in the near future. Mission has a state-of-the-art GMP approved manufacturing facility in Gujarat. All processes in the Company are monitored by ERP Software and backed by ISO Systems.

Since inception over a decade ago, Mission has worked towards and generated tremendous faith and goodwill amongst its stakeholders – patients, healthcare professionals and business associates.

Mission is led by Mr. Akkshay Mehta, an IIM Ahmedabad alumnus. 43 years old Mr. Mehta is the founder promoter of the Company.



---

## NATURELL INDIA PRIVATE LIMITED

---

Name of the Exhibitor : Naturell India Private Limited

Address : Cypress Building, B-Wing, 1st floor, Central Avenue,  
Hiranandani Gardens, Powai,  
Mumbai - 400 076, India

Contact Person : Mr. Jay Solanki

Designation : Brand Manager

Phone No : +91-22-2570 6500 / 4000

Mobile No : +91-22-98216 11683

Fax No : +91-22-2570 6535

Email : [jay@naturellindia.com](mailto:jay@naturellindia.com)

Website : [www.naturellindia.com](http://www.naturellindia.com), [www.ritebite.info](http://www.ritebite.info)

### **Company Profile** :

Naturell (India) Pvt. Ltd is a visionary healthy lifestyles company.

Naturell vision is to provide the finest products that will help consumers adopt a healthier lifestyle.

Naturell's premium products like RiteBite is a Nutritional product (bar) that aim to enrich the life of the health-conscious consumer by providing superior quality, great tasting and nutritious products. Rich in Nutrients, RiteBite is an ideal snack and a healthier alternative to junk food like Protein & Calcium, RiteBite is a good nutritional supplement for the fitness conscious individuals with an active lifestyle. RiteBite with its great taste and rite nutrition is an ideal school. Tiffin for the children.



---

## NESTLE NUTRITION – HEALTHCARE NUTRITION

---

Name of the Exhibitor : Nestle Nutrition – HealthCare nutrition

Address : Specialty Foods India Pvt Ltd.  
Healthcare Nutrition – Sandoz Baug,  
Kolshet Road, Thane – 400 607, India

Contact Person : Saurabh Oak

Designation : Product Manager

Phone No : +91-22-2531 4402

Mobile No : +91-98204 58454

Fax No : +91-22-2531 4404

Email : saurabh.oak@novartis.com



---

## OPTIMAL NUTRIENTS, INDIA

---

Name of the Exhibitor : Optimal Nutrients, India

Address : C-3, 711, Swapnapurti Apts,  
Pimpripada road, Off. Gen & K vaidya marg,  
Malad East, Mumbai - 400 097

Contact Person : Dr. Bhushan M Karnik

Designation : CEO

Phone No : +91-22-2849 6260

Fax No : +91-22-2849 6099

Email : [optimal@mtnl.net.in](mailto:optimal@mtnl.net.in)

Website : [www.optimalnutrients.com](http://www.optimalnutrients.com)

### **Company Profile:**

Optimal Nutrient India are manufacturers of speciality nutrients, especially foods with dietary supplements. We offer innovative nutritional Delivery Systems , Superior Quality and competitive pricing for tablets, 2 piece capsules, soft gelatin capsules, granulations & powder tines. Use our innovative products to target market demands in new areas.



---

## ROYAL MEDICAL PVT LTD / HEALTHAID

---

Name of the Exhibitor : Royal Medical Pvt Ltd / HealthAid

Address : 41-42, Nen Marine Lines, Liberty,  
Cinema Building, Mumbai - 400 020, India

Contact Person : Saumil Gandhi

Designation : Director

Phone No : +91-22-2200 4051 / 52 / 53, 2200 611

Mobile No : +91-98201 35139

Fax No : +91-22-2200 4055

Email : saumilgandhi@gmail.com

**Company Profile :**

Health Aid Ltd., London, U.K., established in 1982, is today an internationally reputed manufacturer of over 450 nutritional & Health Care products, sold through about 3000 pharmacies in U.K., and in over 40 countries worldwide.

HealthAid Nutraceutical products are carefully researched and nutritionally balanced to cater to special individual needs of the entire community, namely children, teenagers, elderly, pregnant, and menopausal women, sports persons and busy executives.

HealthAid range of Nutraceuticals is exclusively available in India through Royal Medical Pvt. Ltd., Mumbai.

Royal Medical Pvt. Ltd., is the flagship company of Royal Group established in 1944, which comprises of,

- 1) Royal Chemists
- 2) New Royal Chemists - Leading retail pharmacies in Mumbai;
- 3) Royal Medical Pvt. Ltd
  - a) Reputed Merchant exporters &
  - b) Wholesale distributors of pharmaceuticals all over India
  - c) Exclusive Distributors of Nutraceuticals in India manufactured by HealthAid Ltd., London., U.K.



---

## SOMAIYA GROUP

---

Name of the Exhibitor : Somaiya Group

Address : Warden House, 3rd Floor,  
Sir P. M. Road, Fort,  
Mumbai - 400 001, India

Contact Person : Mr. S. G. Mokashi

Designation : General Manager - Marketing

Phone No : +91-22-2288 4635

Mobile No : +91-98201 33121

Fax No : +91-22-2288 4636

Email : sales@somaiya.com

Website : www.somaiya.com

### **Company Profile** :

Somaiya Group is agro based industry since 7 decades which produces Sugar and Ethyl Alcohol from Cane Molasses. Ethyl Alcohol is further processed to obtain various chemicals like Acetaldehyde, Acetic Acid, Ethyl Acetate, Crotonaldehyde, Peroldehyde, 3-Methyl-3Pentene-2-one etc.

Also Somaiya Group have set up a extraction plant for Nutraceutical which produces Lycopene with installed capacity of 1MT/ Month of Lycopene of various grades. Lycopene is one of the most powerful natural antioxidants. The other products that are produced are Lutein, Policosanol and Calcium Sennosides.



---

## WONDER CARE PVT LTD

---

Name of the Exhibitor : Wonder Care Pvt Ltd

Address : 17 Dover Road  
1<sup>st</sup> Floor, Kolkata - 700019, India

Contact Person : Mr. Girish Saraf

Designation : Director

Phone No : +91-33-2476-7061

Mobile No : +91-93394-93422

Fax No : +91-33-2486-4146

Email : [wellness@wondercare.co.in](mailto:wellness@wondercare.co.in)

Website : [www.wondercare.co.in](http://www.wondercare.co.in)

**Company Profile :**

Wonder Care Pvt Ltd is a nutraceutical based company. It is a sole representative of Nikken Sohonsa Corporation of Japan (NSC). NSC is world leaders of Microalgae based health Food Supplements, have 121 patent rights in 13 developed countries.

Microalgae as universally known is at the base of food pyramid. NSC believes in researching those Microalgae which are indispensable for the health and wellbeing of human and yet not commonly found in daily food. These Food Supplements have no side effect and are source of 100% natural Beta Carotene, Omega 3, and various other nutrients.



---

## NOTES

---