

# NUTRA SUTRA

## Indian consumers mainly influenced by doctors, media



(L-R) Nigel Sunley, Dr R B Smartha, Milind Kokje, Sunil Shetty and Dr Anne Goldman

**D**r R B Smartha, Managing Director, Interlink Marketing Consultancy, said “today’s Indian consumer is influenced predominantly by doctors followed by media, family and peers.”

Quoting Branding guru, Prof Philip Kotler, who stressed on “create, communicate and deliver” Dr Smartha said “create value through product management, communication, branding and deliver value through customer man-

agement.” Co-chairing the session on ‘marketing and brand building strategies, consumers’, he said that brand management can begin right from brand vitality, brand immunity, brand promise to brand performance.

Speaking on “Principles governing the ethical and legal marketing of nutraceutical ingredients” Nigel Sunley, member of the IUFOST Governing Council; Sunley Consulting – technical consultancy to the food industry, South Africa said, “Claim substanti-

ation to regulatory requirements as a lengthy and expensive process”. On the bottom line he said the substantiation to meet formal regulations. Finally he gave a commercial process as to how a product has to undergo certain steps before reaching the market.

Dr Anne Goldman, Member of the IUFOST Governing Council, Vice President of Consumer Research, ACCE International, Canada highlighted on Consumer research on Nutra products which should focus on innovation,

consumer insights and commercialization. And she suggested to give importance on FDA regulations to revise nutritional facts on label, because of lifestyle changes and diseases. Nutritional information helps people make healthier food choices.

Sharing his ideas, Sunil shetty Director Planning Services, Draftfcb Ulka Advertising spoke on communication: the key competitive advantage in a commoditised world. He showed how Pedisure over took the market of Horlicks not by mere advertisement but by giving nutritional facts. The same with AMUL Paneer, which could not make much profit in Indian market due to its texture as it was not acceptable by the customers.

Milind Kokje, Editor, NuFFooDS Spectrum concluded the session by highlighting that ethics and proper information to consumers are needed with respect to branding and marketing. He focused on branding and popularity of growing social media. Finally he asked the gathering to look for more industry related information on NuFoods Spectrum. ■

## IUFoST 2014: Platform for Indian companies to meet the world

**D**r Ricky Yada, President-elect of the International Union of Food Science and Technology (IUFOST), on Thursday appealed to the Indian fraternity from the nutraceuticals and food sector to be part of Indian delegation planned for IUFOST 2014 – 17<sup>th</sup> World Congress of Food, Science and Technology and Expo at Montreal, Canada from August 17 to 21.

“The event is a platform for Indian companies to meet the world, interact and do business,” he said while giving details to the delegates of the 9<sup>th</sup> Nutra India Summit (NIS) at Bangalore on Thursday. IUFOST President, Dr Pingfan Rao and Secretary General, Dr Judith Meech and Chairman of the 9<sup>th</sup> NIS and IUFOST governing council member, Dr V



Prakash were also present.

Dr Prakash observed that the Indian nutra industry and scientific community is dynamic and expressed confidence that it would surely use this opportunity to participate. He recalled that India-Canada relations date back to Indo Canadian Hunger Project since 1964.

India Partnering Opportunities (IPO), an initiative of MM Activ Sci-Tech Communications, which is the organiser of the NIS, is setting up India Pavilion at and taking a delegation of Indian business and science fraternity to the congress in Montreal.

Dr Yada explained as to why the Indian people should participate in

the Congress and how they would benefit by it. He said it would be a good networking platform. Indian companies would be able to showcase their products and could plan B2B meetings.

The programme would cover areas like potential regulatory issues, consumer behaviour and sensory evaluation, innovation through collaboration, industrially relevant products and issues, food nanotechnology, food processing and convergence innovation for affordable food etc.

Industry leader summit will also be part of the congress in which Guy Wollaert, Senior Vice-President and Chief Technical Officer, The Coca Cola Company, USA, Philip Donne, President, Campbell Company of Canada, Canada and



Johanne Baensch, Global Head of Research and Development, Nestlé, Switzerland, will participate. Other key speakers who would participate in the congress include Robert Fisher, Chief Technical Officer, Molson Coors Brewing Company, USA, Lekh Juneja, Executive Vice-President, Taiyo Kagaku, Japan, Marcel Paques, Principal Scientist, Friesland Campina, The Netherlands, Riette de Kock, University of Pretoria, South Africa, Peter Jones, University of Manitoba, Canada, Brian Keating, CSIRO, Australia, Hosahalli S Ramaswamy (Swamy), McGill University, Canada.

Detail information for participation in India Pavilion at the congress can be obtained from the website www.mmactiv.in/ipo or sending an e-mail to ipo@mmactiv.in ■

## Food acts as antioxidants: Dr Pingfan Rao

**D**r Pingfan Rao, President, IU-FoST, Vice-President, Chinese Institute of Science & Technology, China, Professor and Director, Institute of Biotechnology, Fuzhou University, Fujian, China proclaimed that “Food is Medicine”.

Speaking on a topic on “Intestine: the key target of antioxidant nutraceuticals,” Dr Pingfan Rao provided evidences on how food acts as antioxidants by scavenging the free radicals and making our organ system work to optimum extent. His recommendations are not to eat a piece of chicken instead to drink chicken soup in order to increase the antioxidant availability for the body. He raised two puzzles one saying Phytochemicals, antioxidants bioavailability is low however, its action is enormous, and secondly, antioxidant therapy has yet to deliver what it promises to. There is need for a balance between Reactive Oxygen Species and Antioxidants. He highlighted on effect

of Chinese Acupuncture on meridians conducting superoxides (SOD) in the body. The clinical trials showed that 81% efficacy rate on Allergic rhinitis and 60% efficacy rate on obesity after topical application of TAT-SOD. He also explained mode of mechanism; one ATP will release 233 unpaired electrons, in order to stop the unpairing superoxide indicators work in the mitochondria of the cell by undergoing hydrolysis and oxidation to form green fluorescent in the presence of mitochondrial esterases. On the activity of SOD in rats it was observed that paired electrons were revealed by O<sub>2</sub> -channels indicating the scavenging effect of Free radicals.

He emphasized “Food as antioxidants”. These nanomicro particles act on dendrite cells and mast cells derivativising them to T cells which are immunomodulatory. He also said Coco-Cola like drink and also Herbal tea acts as a serum biomarker by releasing serotonin



(L-R) Dr Pingfan Rao, Dr V Prakash, Dr Judith Meech and Karel Mager

and melatonin, being phytochemicals. He concluded calling Young Scientist to work in his lab on Indian spices present in Indian curry which is loaded with Phytochemicals.

Karel Mager, Quality management and industrialization specialist, Givaudan, The Netherlands sharing his thoughts on the topic “EHEDG dry materials handling subgroup the past 15 years...” proclaimed that “Introducing water in powder factory is introducing enemy.” He explained “The principal goal of

European Hygienic Engineering and Design Group (EHEDG) is the promotion of safe food by improving hygienic engineering and design in all aspects of food manufacture”. He stressed upon the hygienic design criteria and challenges in liquids and powder handling.

Dr V Prakash, Distinguished Scientist of CSIR-India, Vice-President, IUNS and Chairman, 9<sup>th</sup> Nutra India Summit and Dr Judith Meech, Secretary General, IU-FoST, Canada chaired and co-chaired the session respectively. ■

## “Plant bioactives can reduce alzheimer’s risk”



(L-R) Dr N Ranganathan, Dr P M Murali, Prof Angel Gil and Prof Lucy Sun Hwang

**A**lzheimer’s disease has a progressive neurodegenerative disorder which is most prevalent form of dementia, generally occurs in patients over the age of 60. Explaining pathophysiology of Alzheimer’s disease, Prof Lucy Sun Hwang, Distinguished Professor, Graduate Institute of Food Science and Technology, National Taiwan University, Taipei, Taiwan said the disease is characterized by amyloid plaques and neurofibrillary tangles (NFTs), with deposition of amyloid-β (Aβ) peptide into senile plaques in extracellular space and formation of NFTs inside the neurons.

Speaking on ‘Plant bioactive components with anti-Alzheimer’s disease potential,’ she proclaimed “Curcumin present in Indian turmeric and green tea catechins of China may be promising compound for anti-Alzheimer’s disease.” She quoted a study which reported that the prevalence of Alzheimer’s disease in people 70–79 years of age in India is 4.4-fold less than that in the USA, suggesting that a diet rich in curcumin might be responsible for reduced Alzheimer’s disease risk in aged Indians. As curcumin has been shown to have the following properties: anti-Aβ aggregation, antioxidative, and inhibition of β-secretase, AChE, and Aβ-induced inflammation in vitro.

Oral administration of curcumin inhibits Aβ oligomerization and tau phosphorylation in the brain in vivo.

She further said that research data showed that the leaf extract of Ginkgo biloba (EGb), labeled EGb761, possesses the capacity to treat a variety of neurological disorders, including Alzheimer’s disease and age-related dementia, EGb761 is a mixture of the flavone glycosides (flavonoid fraction, 22~27%) and the terpene lactones (terpenoid fraction, 5~7%). She concluded that Alzheimer’s disease risk can be reduced by certain plant bioactives, such as curcumin, tea polyphenols, Ginkgo biloba extract and Z-ligustilide.

Due to activities of microbes in the human body, Dr N Ranganathan, Senior VP (R&D), Kibow Biotech Inc., USA and Board Member of International Probiotics Association raised a question as “Who is Hosting Who? Whether it is Human hosting Microbes or Microbes hosting Human!!!”

On “Probiotics: Beyond gut and digestive healthcare applications” Dr N Ranganathan explained the two types of bacteria- Potentially harmful bacteria causing diseases and potentially helpful bacteria inhibiting exogenous and/or harmful bacteria, stimulating

immune functions, aiding digestion and/or absorption and also synthesizing vitamins. His company came out with the solution for removing toxins produced by harmful bacteria in the bowel through trained probiotics. Probiotic bacterias suggested by him are Streptococcus thermophilus (KB 19), Lactobacillus acidophilus (KB 27) and Bifidobacteria longum (KB 31).

He highlighted probiotic drugs that are able to increase quality of life by reducing nitrogenous wastes in blood, delaying the need for dialysis or transplantation and also possibly reduce the frequency/duration of dialysis. Finally he concluded with a ‘Hope’ or ‘Aasha’ for chronic and acute kidney disorder patients which is also the meaning of his company ‘KIBOW’.

Prof Angel Gil, full Professor Department of Biochemistry and Molecular Biology II, Institute of Nutrition and Food Sciences, Centre of Biomedical Research, University of Granada, Granada, Spain, President of the Iberoamerican Nutrition Foundation (FINUT), President of the Spanish Society of Nutrition (SEÑ) spoke on ‘Mechanism of action of probiotics’. He talked about desirable characteristics of a probiotic like general characteristics-preferably human origin, absence of transferable resistance to antibiotics and pathogenicity or toxicity factors and capacity to survive in intestinal conditions (acid pH enzymes, biliary salts, etc). Functional characteristics like adhesion to intestinal epithelium, antagonism against pathogens, stimulation of the immunological system and beneficial metabolic activities on the host.

Dr P M Murali, President, Association of Biotechnology Led Enterprises (ABLE) and MD, Evolve Biotech chaired the session on “Probiotics, enzymes and nutrigenomics- the Wellness Thread”. ■

# “India will lose \$9 bn of national income due to premature death”

“India has large number of nutrient deficient population. India will lose \$9 billion of national income due to premature death causing from heart disease, stroke and diabetes. It will continue to lose \$237 billion over the next 10 years, if preventative action is not taken in time,” said Dr Sukhinder K Cheema, Professor & Deputy Head, Department of Biochemistry, Memorial University, Canada.



Speaking on functional importance of Omega 3 and 6 Fatty Acids (DHA) from conception till ageing Dr Cheema said that as Omega 3 and 6 acids balance properties of each other, DHA should be consumed in equivalent proportion. However, the consumption of Omega-6 is much higher than its counterpart, leading to disorders. She further said, “Duration of exposure to DHA, dosage of DHA and its gender specific effects are the crucial factors in study of DHA.”

Talking about her research she said that 10% Omega-3 fatty acid is proved to be beneficial for health with sustainable exposure throughout life showing decrease in cardiovascular diseases (CVD) and obesity. However, she raised concern over the vast difference between figures of recommended consumption and actual consumption across various populations. While recommended intake of Omega-3 in pregnant and lactating woman and adults is supposed to be around 300 mg and 220 mg respectively, actual figures are negligible compared to it.

She concluded her talk by saying that DHA plays vital role in brain development of fetes. Its deficiency in pregnant mother could lead to neurological disorders in baby. DHA also helps against Alzheimer’s disease and robust mental health. Hence awareness through doctors, fitness trainers and media, attitude of people towards healthy lifestyle and availability of DHA supplements and fortified foods are keys to fight against DHA deficiency, she added.



Dr Nicolas Issaly, Research Programme Manager, Naturex, Spain, drew attention towards diabetic epidemic in India



(L-R) Dr Rama Vaidya, Dr Nicolas Issaly, Dr Rekha Sharma, Dr Jamuna Prakash, Dr Sukhinder K Cheema, Dr David Cai and Dr Priyanka Rohtagi

and highlighted need of natural sweetener which is developed from a Moroccan tree named ‘Fraxinus Excelsior’. In his address he said, “25% deaths in India are caused by diabetes with 1 in 5 cases of undiagnosed diabetes. According to International Diabetes Federation, India is referred to as capital hub of diabetes which is set to raise to 70 million by 2025. Prevention of diabetes should therefore be a priority for the health programme of the nation.

He said considering the number of modifiable risk factors among the pre-diabetes group, Glucevia could be a good opportunity for prevention of diabetes. Glucevia is the only available extract derived exclusively from the seeds / fruits of Fraxinus excelsior L. Fraxinus is a tree usually referred to as “common ash” or “European ash”. Also found in the Tafilalet region (Morocco). Historically, Fraxinus was largely limited to the Mediterranean Basin, where local populations used it in food and infusions, for its hypoglycemic effect.



Dr David Cai, BASF Human Nutrition, Regional Scientific Marketing, China, emphasised on Cholesterol and Cardiovascular disease. He spoke

on “Heart healthy ingredients for Indians” - a case study of plant sterols. He highlighted the cholesterol status in South Asia that is 12.6% of males with 35-59 age group have total cholesterol higher than normal. Up to 44% of urban men and 25% of peri-urban men in India have high cholesterol. He stressed that life style change can reduce CHD risk according to NIH recommenda-

tion (USA). He further talked on plant sterols and their mechanism in reducing cholesterol by 30 to 60% i.e. it is a physico-chemical effect, not direct inhibition of cholesterol synthesis and efficacy of plant sterols is largely independent of fat content of the food. He concluded that plant sterols have proven to be cholesterol lowering benefits without negative side effects.



Dr Rama Vaidya, Reproductive Endocrinologist, Medical Research Center - Kasturba Health Society, Mumbai bridged the link between

pharma and nutra and asked to shift to different paradigm sometimes. She spoke on “Nonalcoholic fatty liver disease & Gut-microbiota: New therapeutic targets”. Non alcoholic fatty liver disease (NAFLD) describes a range of conditions because of buildup of fat within liver. NAFLD leads to a hepatic manifestation of Metabolic Syndrome. Prevalence of NAFLD is around 9-32% in general Indian population, with a higher incidence amongst overweight/obese and diabetic/ prediabetic patients; even mild elevation in aminotransferase levels warrants attention, since it might more often than not point to previously unsuspected liver disease.

She further said that polycystic ovary syndrome (PCOS) in adolescent girls and young women was very much hidden epidemic. This hidden epidemic of the yester years has become overt, deserving community participation and actions. She concluded by saying that a combined multiple pharmacological therapy directed simultaneously towards novel and old pathomechanisms

(including, e.g., insulin resistance, oxidative stress, gut-liver axis, apoptosis) along with lifestyle interventions might be necessary both in adult and pediatric NAFLD therapy.



Dr Priyanka Rohtagi, President, Indian Dietetic Association, Bangalore Chapter, Chief Clinical Dietitian, Apollo Hospitals spoke on Role of

Antioxidants in delaying lifestyle diseases. She said antioxidant prevents the transfer of electron from O<sub>2</sub> to organic molecules, stabilizes free radicals and terminates free radical reactions. She described ROS as Free oxygen radicals that is molecule with an unpaired electron formed, extremely chemically reactive, damage cell membranes, responsible for more than 100 human diseases and causes aging, cancer, heart attacks, stroke and arthritis. She concluded by calling upon people to maintain free radical defences. So they need to replenish dietary antioxidants on a regular basis. Thus raising the question is antioxidants be replenish from foods or supplements?

The session on “Doctors and nutritionists forum on: Immunity and disease delaying with special focus on lifestyle diseases” was chaired by Prof Jamuna Prakash, Department of Food Science and Nutrition, University of Mysore and Dr Rekha Sharma, President, Indian Dietetic Association, Country Representative and Director, International Confederation of Dietetic Association, President and Director, Nutrition and Dietetics, Diabetes Foundation, India. ■



Dr G Thyagarajan receiving the lifetime achievement award from Dr Ashok DB Vaidya

## Outstanding achievers receive Nutra awards

The persons and organizations, who made outstanding contributions in different areas of nutraceuticals such as industry growth, scientific areas were honoured with Nutra Excellence Awards at a glittering ceremony held at Hotel Lalit Ashok amidst a galaxy of dignitaries this evening. The award ceremony was started with dance program by Eartha group.

Dr Ajit Kumar, Vice Chancellor, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), who built a huge mansion for growth of nutraceutical industry said “ All the stakeholders of the indus-

try – policy makers, academia, industry from both public and private - need to work together to solve many issues before a country like India which has diverse culture, diversity, tradition etc.”

Dr Ajit Kumar along with Dr V Prakash, Vice President, International Union of Nutritional Science (IUNS) and Chairman, 9th Nutra India Summit and Jagdish Patankar, Organizing Secretary, Nutra India Summit; Managing Director, MM Activ Sci- Tech Communications Co. Publisher, NuF-FoodS Spectrum gave away the Nutra Excellence Awards, Exhibitor Awards and Poster Awards. ■

## Winner takes it all

### NUTRA Excellence Awards

**Dr G Thyagarajan**  
NUTRA Lifetime Achievement Award

**Dr Lekh Juneja**  
NUTRA Industry Personality Award

**Prof Angel Gil**  
NUTRA Scientific Award

**Naturex**  
NUTRA Industry Recognition Award

**Indian Dietetic Association**  
NUTRA Excellence Award

### Exhibitor Awards

**Interactive & Best Managed**  
**Sami Direct Marketing**  
**Nichi-In Bio Sciences**  
**Kibow Biotech**

**Design & Innovation**  
**Coffee Board of India**  
**DSM Nutrition**  
**Ace International**

**Special Jury Recognition**  
**Council of Scientific & Industrial**  
**Research**  
**Bio-Gen Extracts**

### Poster Awards

**Aswathy Dev**  
Kerala Agricultural University

**Bhavya S N**  
University of Mysore

**Charanjit Kaur**  
Indian Agriculture Research Institute

**Neha Saini**  
Indian Agriculture Research Institute

**Pritam Kalia**  
Indian Agricultural Research Institute

**M S Radhika**  
National Institute of Nutrition

**R Saravanan**  
Tata Chemicals Ltd , Innovation Centre

**Shamshad Begum S**  
University of Agricultural Sciences,  
Bangalore

**B N Shyamala**  
University of Mysore

**Vasantha Esther Rani**  
Fatima College

## Rewind



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