

# SOCIETY FOR ETHNOPHARMACOLOGY, India (SFE - INDIA) NEWS LETTER

Vol. 2016/3 No. 9 & 10

August 2016

#### **Contents**

- Report of the Regional Symposium of Guwahati local Chapter of SFE during 2015-16.
- Report on Workshop on Research Methodology organized by Nagpur local chapter of SFE during April, 2016
- Report on the activity of
- BOTANICAL DNA: A Difficult One Step Crack?
- Quality Assessment of Medicinal Plants from Organic and Inorganic methods of Cultivation
- Achievements
- Upcoming Events

#### **Editors**

Dr. D. Chattopadhyay

Dr. S. Karmakar

Dr. S.C. Mandal

#### **Editorial Board**

Dr. P. Banerji, President

Dr. P.K. Mukherjee, Secretary

Dr. P. Halder

Dr. B.P. Saha

Mr. Indraneel Das

Mr. P. K. Banerjee

#### **Editorial Assistant**

Mr. Amit Kar

Mr. Joydeb Chanda

Mr. Debayan Goswami

Mr. Logesh R

# **Editorial**

In the recent past the quality, safety and efficacy of herbal products have become an important concern for both the common people and the health authorities round the globe. It necessitates some serious measures needs to be taken. As a result certain stringent measures have already been taken by incorporating / amending laws to ensure quality, safety and efficacy of herbal medicines by different countries like India and international agencies like International Conference on Drug Regulatory Agencies (ICDRA), World Health Organization (WHO), European Commission (EC) etc. India is proactive in this matter and has taken some pragmatic policy decision during the last one decade by introducing new legislation, amendment of existing rules and regulations to ensure quality, safety and efficacy of Ayurvedic, Siddha and Unani (ASU) medicines. Though some initiatives have been taken by ICDRA, WHO, EC etc. there is dire need of global harmonization of the legislation to get quality, safe and efficacious herbal medicine for the benefit of humanity.

# Secretary's Desk

Society for Ethnopharmacology, India is working for dissemination of knowledge for the promotion and development of Ethnopharmacology and Medicinal Plant with its major highlights on "Globalization of local knowledge and localization of global technology". We would like to request you to join the following events:

- The 7<sup>th</sup> World Ayurveda Congress & AROGYA Expo (7<sup>th</sup> WAC) is scheduled to be held at Science City, Kolkata from 1-4 December 2016. This edition of the WAC is being organized by World Ayurveda Foundation with active support from the Ministry of AYUSH, Govt. of India with the theme on "Strengthening the Ayurveda Ecosystem'. In this 7<sup>th</sup> WAC, Society for Ethnopharmacology, India will organize an International Conclave 'Ethnopharmacology, Ethnomedicine and Traditional Health Practices' as a part of the event at Science city, Kolkata during December 3-4, 2016. This congress will focus on some crucial and contemporary issues on the scientific study based on Ayurveda, Ayurveda practitioners and enthusiasts for promotion and development of Ayurveda.
  - For registration and abstract submission please visit www.ayurworld.org
- The 4th International Congress of Society for Ethnopharmacology, India (SFEC 2017) on "Healthcare in 21st century: Perspectives of Ethnopharmacology & Medicinal Plant Research" will be organized by Uka Tarsadia University, Bardoli, Surat, Gujarat, India in association with Society for Ethnopharmacology, India (SFE-India) during February 23-25, 2017. For details please visit www.ethnopharmacology.in / www.utu.ac.in/SFEC2017bardoli/

Please join these events and explore the opportunities.

# Reporton

# 1st Regional Seminar: SFE-India, Guwahati Local Chapter

"Pharmacovigilance of Natural Products- A Preliminary Approach "

# September 26, 2015

1<sup>st</sup> Regional Seminar of SFE-India Guwahati "Society for Ethnopharmacology India", was held on 26<sup>th</sup> September, 2015, in the O & G Hall of Guwahati Medical College, Bhanga Garh on "Pharmacovigilance of Natural product – a preliminary approach". It was jointly organized by Department of Pharmacology, College of Veterinary Science, Khanapara, Guwahati, and ADR Monitoring Centre, Guwahati Medical College, Guwahati, Assam.

Prof. Pulok K. Mukherjee, Director of School of Natural Product Studies, Jadavpur University, Kolkata, an eminent scientist of repute and Secretary of Society for Ethnopharmacology, India (Affiliated to International Society for Ethnopharmacology) was the Chief Guest of the event. Dr. K.C Saikia, Principal, Gauhati Medical College was the Guest of Honour. The symposia was attended by nearly 150 participants including scientists, faculties and students from various Universities and Colleges of Gauhati, Meghalaya (USTM), Nagaon, (ADP college), Jorhat Medical College, Downtown Medical University, Guwahati University, Cotton College, Veterinary College besides the host institute, Guwahati Medical College.



Glimpse of 1st Regional Seminar of SFE-India Guwahati Local Chapter

Experts from various fields threw lights on importance of Pharmacovigilance to create awareness among participants. Dr S.K.Borthakur, Gauhati University, Dr. Bishnu Prasad Sharma from Govt. Ayurvedic College discussed in detail on the topic. Dr Rama Kanta Sarma, from Govt. Ayurvedic College also gave a concluding remark on licensing of Ayurvedic products briefly. The seminar was jointly co-ordinated by Dr Mangala Lahkar, Head of department of Pharmacology and Academic Coordinator, NIPER, Guwahati and local Coordinator Prof. Chandana Choudhury Barua, Professor, Department of Pharmacology, College of Veterinary Science, Khanapara, Guwahati. Students from far flung regions showed their keen interest on such symposia or conference in future which is the need of the hour.

# Report on

Workshop: SFE-India, Nagpur Local Chapter

"Research Methodology"

April 2-3, 2016

A very unique intellectual feast on research methodology in Ayurveda with a focus on the traditional Vaidya scientists and the modern scientists was organized on 2nd and 3rd April at Vanamati, Nagpur. The workshop was Organized by, 'Upavan' Society and co-organised by ME2WE foundation & Society for Ethnopharmacology, Nagpur Chapter. The event was supported by World Ayurved foundation of Vijnana Bharati and recognized it as its flagship program for the 7<sup>th</sup> World Ayurveda Congress, 2016 to be held at Kolkata. With the intention to bridge the scientific requirements in this area the workshop gave opportunity to the Ayurvedic vaidya, students and traditional healers to collaborate with the modern scientists especially the students and researchers of natural products in Pharmaceutical sciences.

The workshop was guided by eminent personalities from Ayurvedic and pharmacy field. Dr. Girish Tillu from Pune University spoke on the subject of 'An idea on research Question' and 'Publication of research paper, Dr. Supriya Bhalerao from IRSHA Pune on 'Developing methodology,' Dr. Shweta Telang from Dept. of Ayush, Nashik on 'Quality parameters for Herbo-mineral formulations and avenues ahead', Dr. Prakash Itankar on 'Inter-disciplinary research, Dr. Amit Nakanekar on 'Research and day to day practice', Shri. P.M. Ballal, Inspector at FDA, on 'Expectations of FDA from

Ayurved Drug industry, legal perspectives.' In the inaugural function several distinguished personalities were present. Student deligates from several disciplines like-MD (Ayu.), M. Pharmacy, Vaidyas and faculty members of Ayurved and Pharmacy participated in this programme.



सांगता समारंभाला डॉ.काबरा

डॉ.इट्टडवार,

डॉ.ए.एन.सावजी

इटनकर यांच्या संकल्पनेतून या

कार्यशाळेचे आयोजन करण्यात

आले.(प्रतिनिधी)

विजानशास्त्र शाखेतील तज्ज्ञ मंडळींनी

मार्गदर्शन केले. डॉ.गिरीश टिल्लू,

डॉ.सुप्रिया भालेराव, डॉ.श्वेता तेलंग,



# Workshop for scholars on Ayurveda's research methodology concludes

M Staff Beingele

A WORKSHOP on research methodology in Ayurveda was jointly organised by 'Upavan' Society, ME2WE foundation are Society for Ethnopharmacology Nagpur Chapter in association with World Ayurved foundation of Wilmant Burard.

of Vijnana Buarat.
The workshop was aimed to provide an opportunity to the Ayurvetic Vaidya, students and traditional healers to collaborate with the modern scientists especially the students and researchors of natural products in Pharmaceutical sciences.

Dr. Gristi, Tillu from Pune

Inivestivy Spokes on the subject of An idea on research of An idea on research Question and "Publication of usearch paper." Those who presented papers include Dr. Spiritja Shalezia from Histlât Vane on 'Developing methodolggy' Dr. Shweit Telang from Spiritja Shalezia (Developing and Spiritja Shalezia (Developing Guality parameters for Herbonineral Tormulations and vecenes alwaed, Dr. Parkash Tankar on 'Inter-disciplinary escarch- approach', Dr. Amiti Valantakar on 'Research and top to day practice. J. M. Bullal, to the property of p Physician Dr Malound Rabeit Per Chamasiyant Kodwan from overament/kyurwed Codlega, D Intram. Jostich from Worth Intram. Jostich from Worth Foundation were pres in 'n hängiral finicion idedictory function was chales by Dr Kabban, Dr A. Hindway Dr Kabban, Na Sadi, Dr A. Augi, De N. J Dumgkar, Dr D N and Andreas Codlega of the Success of the togrammine.

The deliberations and the interactive sessions were very vibrant and the aspirations of both sides were discussed. It was finally decided to identify and club the strengths of the traditional vaidyas and the modern scientific community in doing collaborative research and validation. The organizing team express special thanks to Shri. Jaykumarji, Vijnana Bharati, Shri Chandrashekharanji, WAF and Prof. Pulok K. Mukherjee, Society for Ethnopharmacology (India). We also express deep appreciation and thankfully acknowledge the support rendered by various organizations in the making of a successful workshop.

# Reporton

# **Activity of SFE-India, Manipal Local Chapter**

The Manipal Chapter of SFE-India was started under the stewardship of Dr. N. Udupa in the beginning of 2016. The chapter was inaugurated in a formal function held at MCOPS on 12<sup>th</sup> February 2016 by Dr. Bhushan Patwardhan, Director, Interdisciplinary School of Health Sciences, Savitribai Phule Pune University, Pune. Manipal local chapter in association with Center for Integrative Medicine and Research (CIMR), Manipal University, following lecture series was organized for the promotion and development of Ethnopharmacology:

The local chapter organized a lecture by an eminent researcher and scholar of Indian history and yogic practices, Dr. David Frawley on 17 February 2016 at MCOPS. He delivered an impressive discourse on Vedic knowledge and yoga practices to a large gathering. Dr. Kalpana Ranadive, CEO, Integrative, Biologic & Vedic Dentistry, Rockville, Maryland, USA; deliberated on "Redefining health via Ayurveda and Integrative health sciences" on 26 March 2016. The lecture was organized by the Manipal chapter SFE together with CIMR. On 30<sup>th</sup> June 2016 again CIMR and SFE Manipal Chapter together organized another seminar on Scope and objectives of Integrative medicine. Dr. B. Sathyabarayana Principal, Muniyal Institute of Ayurveda Medical Sciences, Manipal and Dr. Joseph Thomas, Head, Centre for Bioethics, Manipal University and Professor of Urology, KMC Manipal, spoke on Scope and objectives of the Integrative medicine and legal issues in the medical practices, respectively in the seminar. All the seminars organized have no financial support from the SFE. Therefore collaboration was the only choice for organizing for such seminars. The Manipal chapter is striving hard to attract more and more memberships for the society by organizing such seminars and conferences. However, it is an uphill task in the face of lack of apparent benefits for the members. Furthermore the local chapter has to bore all the other expenses. Aatreya Education Systems Pvt. Ltd. has taken the initiative for expanding the chapter activities in the near future.

# **BOTANICAL DNA: A Difficult One Step Crack?**

USP with the U.S. Department of Agriculture (USDA) held a workshop in October 2014 to discuss the strengths, limitations, and applications of DNA-based identification methods for botanicals. Thereafter, a roundtable meeting was organized on May 26, 2016 at USP Headquarters in Rockville with the stakeholders and experts from academia, industry and regulatory agencies, to discuss whether this DNA method can be added as a complement to traditional morphological and chromatographic identification tests in USP botanical standards. Major feedback from the meeting suggested some typical issues on the appropriateness of this methodology for cGMP regulation. Impact of processing (steaming or grinding), type of material (water or methanol extract), impact of plant part (flower, leaf vs root, bark) has been mentioned

to affect the success of DNA assay. Classical chemical tests have been mentioned to be retained along with qualitative and quantitative DNA assay in-order to overcome the short comings of this identification. Considering the effect of plant matrix on DNA extraction techniques like PCR is though to be of added advantage. Discussion on scientific and quality issues of this DNA analysis indicated that aspects like extent of processing, plant part used, nature of adulterant and definitely incidences of false positive and false negative results (70-80% with botanical products) must be seriously considered before enforcing this technique as mandatory for evaluation of botanicals. Finally key comments of these discussion suggested that the DNA method should be tailored to the product and be fit for specific purpose (e.g. fresh products respond better than processed plant material). Declarations to be made on DNA technologies available to address botanical identification e.g. targeted and non-targeted genome sequencing and their pros and cons, with particular importance to issues like Extraction and Preparation method, Data interpretation, Economic burden and Adaptability. Participants also discussed criteria for validation parameters as well as specific parameters that would be applicable to DNA methods for botanical identification. Prescriptive-based validation which helps to align biases and results in a well-defined solution with a narrow degree of variation should be blended with Performance-based validation to achieve more transparent results. The validation process should ensure that companies and labs will be testing the correct voucher specimen with appropriate equipment for DNA testing where manufacturing processes, additional ingredients and even accounts for error should also be with-in consideration. To close the meeting, participants made suggestions to USP for incorporating validated DNA methods into USP standards for the identification of botanical articles but should clearly mention where classical analytical techniques to be utilized to meet the better ends of the current purpose.



Gazette Notification on Food Safety and Standards (Packaging and Labelling) Third Amendment Regulation, 2016 on the use of Plant Sterol (Phytosterols), Isomaltulose, High Fibre Dextrin and Food Safety and Standards (Food Products Standards and Food Additives) Fourth Amendment Regulations, 2016 relating to ARA & DHA, Isomaltulose, High Fibre Dextrin in various food products. (Uploaded on: 25.07.2016).

# These are some mandatory labeling requirements that has been suggested

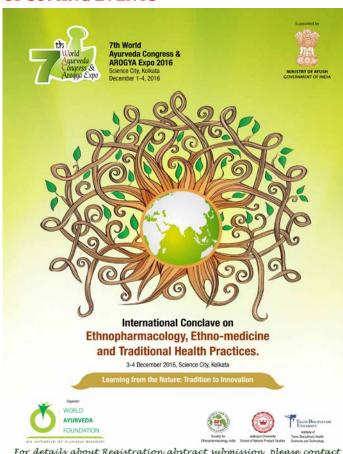
- Contains Isomaltulose---- (calories)
- Contains Dietary Fibre (Dextrin) ----- (Source of soluble Dietary Fibre)
- Contains Plant Sterol (as Phytosterols) ---g/100g or 100ml.
- Patients on cholesterol lowering medication should use the product under medical supervision
- May not be nutritionally appropriate for pregnant and lactating women and children under the age of five years.
- Consumption of more than 3g/day, total of sterol, stanols, or combination thereof, should be avoided

# Quality Assessment of Medicinal Plants from Organic and Inorganic methods of Cultivation

Dr. Prakash R. Itankar; Department of Pharmaceutical Sciences R. T. M. Nagpur University, Nagpur; E-mail: pri.200672@gmail.com

Biological Diversity Act (2002) and Rule (2004) enforced the noble thought of protecting our biodiversity and it will be difficult to procure the crude drugs by wild harvesting. Therefore, it becomes imminent for all the herbal industries and those working on medicinal plants, to produce these crude drugs by cultivation in the fields. A series of food scares and the controversy surrounding genetically modified crops have prompted heated debate about the safety and integrity of our food and herbal medicines. Worldwide revolution for the improvement of people safety is gaining momentum; hence drug safety for the subject becomes even more prominent in the present day scenario. Different cultivation practices and laboratory generated production of the medicinal plant or food are being utilized for commercial purposes. These practices may have profound impact on the safety and efficacy of the Ayurveda drugs in the market. Against this background, demand for organically grown food and herbals has been growing rapidly. Until now this perception that organically that organically grown food is 'better for you' appears to have been largely based on intuition rather than conclusive evidence. The concept of food quality as per researchers within the organic movement includes six criteria, embracing functional, biological, nutritional, sensual, ethical and 'authentic' considerations. Hence, the present day research shall attempt to scientifically validate the impacts of organic and conventional cultivation practices on the nourishment, phytoconstituents, biological activity and safety measures. Therefore, the outcome of studies focusing on following objective of Organic/non-organic cultivation of medicinal plants and their comparative nutritional, antinutritional, phytochemical, toxicological and pharmacological screening is worth sharing for strengthening the field of herbals.

# UPCOMING EVENTS



For details about Registration, abstract submission please contact

**WAC Secretariat** www.ayurworld.org **LEARNING FROM THE NATURE: TRADITION TO INNOVATION** 

#### About the conclave

Ethno medicinal plants have been used since ancient time for human healthcare and still remain the most widely used medication system in developing countries. Ethnopharmacology deals with the interdisciplinary studies between medicinal plants and its uses in different cultural for their therapeutic values. It is based on the combination of the chemical, biological, and pharmacological sciences which have been considered as a useful tool for natural product based drug discovery. Despite widespread use of plant resources in traditional medicines, reports on their mechanistic approaches for scientific validation, quality evaluation, safety documentation are very less. Evidence based validation of the traditional remedies derived from ancient ethno pharmacological claims through integration of modern scientific knowledge is the need of hour. This conclave will be the best platform in this regard for development of integrated approaches towards drug development from Ayurveda and other Indian systems of medicine.

This conclave will be organized jointly with the Society for Ethnopharmacology, India. Society for Ethnopharmacology, India was formed in 2013, with inspiration from Late Dr APJ Abdul Kalam, Former President of India. It is a registered Society affiliated to the International Society for Ethnopharmacology, UK. The society has made its presence through the country, which provides networking opportunity for development and promotion of medicinal plants an Ethnopharmacology. The Society works on dissemination of knowledge in this area with the major highlights on "Globalizing local knowledge and localizing global technologies." For further details please visit: www.ethnopharmacology.in

Major highlight will be on the importance of the ethno pharmacological relevance for the evidence based research on medicinal plants. Evidence based documentation on safety, efficacy and quality of medicinal plants from different traditional medicines for development of herbal products based on their Ethno pharmacological claims will be highlighted from different stakeholders. We hope this conclave will be very helpful for the promotion and development of Indian Systems of medicine at large. The major emphasis will be given on ethno-medicine and traditional health practices particularly highlighting - the learning from our ancestors; learning from the nature: m tradition to evidence based medicine.



Learning from nature learning from our ancestors -Tradition meets innovation

Ethnopharmacology, Ethno-medicine & Traditional Health practices



# **Ethnopharmacology**, India

Surat, Gujarat, India February 23-25, 2017 Healthcare in 21st century: Perspectives of

Ethnopharmacology & Medicinal Plant Research

# Organized by

C.G. Bhakta Institute of Biotechnology & Maliba Pharmacy College **UkaTarsadia University** Bardoli, Dist. Surat- 394350, Gujarat, India

www.utu.ac.in; www.ethnopharmacology.in

# Prof. R. Krishnamurthy

Organizing Chairman SFEC-2017 Mobile no: +91 9825349279

krishnamurthy@utu.ac.in www.utu.ac.in/sfec2017bardoli

# 3<sup>RD</sup> CONVENTION: SFE - INDIA

National Seminar

on

"Analytical Techniques for Drug Discovery & Development from Natural Products"

September 24, 2016

Organized by:



School of Natural Product Studies
Jadavpur University, Kolkata, India

In association with:



Society for Ethnopharmacology, India (SFE-INDIA)
Saktigerh, Jadavpur, Kolkata, India

Last date for Abstract submission & Registration September 19, 2016.

Total number of participant is limited.

For details please visit

www.ethnopharmacology.in

Venue: KP Basu Memorial Hall, Jadavpur University, Kolkata

