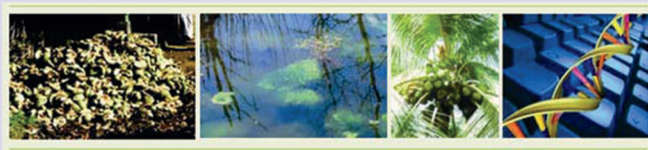


First Announcement and Call for Papers  
The Fourth International Seminar on  
**Sustainable Utilisation of Tropical Plant Biomass**  
**- Ayur informatics**  
December 12<sup>th</sup> & 13<sup>th</sup>, 2014



Organised jointly by



MHRD-AiCADD Centre of Excellence  
Department of Computational Biology and Bioinformatics  
University of Kerala, Kariavattom Campus  
Kerala State, India  
&



**Kerala State Biodiversity Board**  
Thiruvananthapuram, Kerala State, India  
In association with



LUND  
UNIVERSITY



Department of Applied Nutrition and Food Chemistry, Lund University, SWEDEN

# Sustainable Utilisation of Tropical Plant Biomass - Ayur informatics

**Background:** Population is increasing in number and it is also being urbanised at an alarming rate. Water supply, waste management, pollution control, social security, employment opportunities, food security, sanitation and public health are issues which demand serious concern. Hidden hunger due to low purchasing power and severe poverty is still a reality for millions of people. Increasing occurrence of life style related diseases like obesity, diabetes, cardiovascular diseases and cancer among the high income people imposing a huge burden on public health and social well being is the other side of the coin. To organise safe and secure food supply at a reasonable price to all the people, we may have to resort to both extensive and intensive measures causing not only depletion of energy, water and other natural resources, but also pollution of environment with pesticides, acidic rain, nitrogen leaching and green house effect.

Global demand for health promoting food products manufactured using sustainable, environment friendly and fair trade practices is increasing. Food regulating authorities, consumer organisations and leading food industries are trying to utilise this opportunity to promote marketing of their products with various labelling systems. The “Carbon foot print” is the labelling system which shows the total environmental impact of food production on global warming. Market for “fair trade”, “organic foods”, “health foods”, “nutraceuticals” and “functional foods” is growing. India's share of the global market is only around 0.5 to 1.0 percent for goods. Production and marketing of knowledge intensive value added products would not only increase the productivity of the agro-food sector and income of the people living on agriculture, but also promote improved public health, social welfare and better quality of life.

In this background, a seminar on “Sustainable Utilisation of Tropical Plant Biomass - Ayur informatics” for producing value added products using advanced knowledge in Food Science and Biotechnology become important and timely.

**Vision and Objectives:** This seminar will provide a scientific forum for addressing utilisation of plants for food, feed, fuel, manure, medicine and various other purposes in a sustainable manner. Identification of the present status in knowledge as well as the priorities for future development through application of Modern Biotechnology and Computational Biology will be discussed.

**About the Seminar:** The Fourth International Seminar on “Sustainable Utilisation of Tropical Plant Biomass - Ayur informatics” aim to cover various topics like utilisation of plants as food, feed, bio-energy, healthcare and medicine, bio-fertilizers, habitat restoration and development of environment friendly products and processes. The seminar will give special attention to **Ayur informatics** and devote one session for discussing various aspects of **Ayur informatics**. It will seek to facilitate the participation of young and talented researchers from Colleges, Universities, Research Institutes and Industries, and promote interaction among them. It aims to provide a global platform to promote collaborate and collective endeavour to solve the complex problems associated with effective utilisation of plant biomass. Several national and international experts/scientists will speak on the recent development and updates on the utilisation of plant biomass and other key areas especially in the field of medicine and bio-products using current interventions of Biotechnology. Interaction between the participants and experts will be encouraged through question and answer sessions and panel discussion in the seminar.

## Major Areas of Interest are:

- Utilisation of plant biomass as food, feed, fuel, manure and medicine
- Ayur informatics for a sustainable Kerala
- Utilisation of marine plants for food and drugs
- Experimental research in Biology, Chemistry, Medicine & Pharmacy related to Medicinal plants
- Design and discovery of molecules of therapeutic effect from plants using Bioinformatics
- Importance and challenges in plant biomass utilisation through Biotechnology
- Utilisation of plants for bio-energy/bio-manure
- Importance of plants in habitat restoration and environment development

## Registration:

The registration details and online form is available on seminar website (<http://www.sustainable-kerala.net>) and the registration (about 200) is available on a first-come, first-serve basis. No spot registration will be considered. The last date for registration is on **10<sup>th</sup> November 2014**.

Registration Fee	National (INR)		International (USD)	
	Before 30 Oct 2014	After 30 Oct 2014	Before 30 Oct 2014	After 30 Oct 2014
Indian Students (UG/PG)	Rs. 1000	Rs 1500		
Indian Faculties/Research Scholars	Rs. 2500	Rs 3000		
Indian Industry Delegates	Rs. 5000	Rs 5500		
Foreign Students			\$ 135	\$ 150
Foreign Faculties/Industry Delegates			\$ 165	\$ 180

The registration fee includes registration kit, abstract book, breakfast and lunch on both the days, banquet on 12th night as well as tea and refreshments during the break time.

Abstracts submitted must be original and must not have been previously published elsewhere. The submitted abstracts will be reviewed by the scientific review committee of the seminar and the authors will be informed about the status of abstracts. The selected abstracts can be presented as oral/poster on the specific day of the seminar. The best oral/posters will be given prize awards. The guideline for the abstract preparation is available in the seminar website. The abstract submission without registration will not be considered. The last date of abstract submission will be on 1<sup>st</sup> November, 2014.

The full length research papers presented in this seminar will be published in the indexed journal as a special issue in **International Journal of Agriculture, Environment and Biotechnology** after peer-review by editorial board. The manuscripts should be prepared as per the instructions to the authors on the journal website ([http://www.ndpublisher.in/IJAEB\\_Guide.htm](http://www.ndpublisher.in/IJAEB_Guide.htm)) and the dead line for submission of full papers is on 30<sup>th</sup> November 2014.

## Accommodation

The registration does not cover accommodation, however, assistance could be provided for the arrangement of accommodation (hotels or guest houses) in the vicinity of the venue on request on a first-come, first-serve basis.

## Mode of payment:

The registration fee may be remitted in the form of a DD-Demand Draft drawn in favour of **Saraswathy V., SUTPBM2014**, to be deposited in the **Account No. 67067434637 State Bank of Travancore, Kariavattom Branch, Kerala State, India**. Name, signature and the phone number of the delegate must be given on the reverse page of the DD.

## Cancellation Policy:

No refund will be given, but the registration can be transferred to substitute delegates without penalty.

Visit the webpage of the seminar for more details: <http://sustainable-kerala.net>

## Scientific Committee

**Dr. Ashalatha S. Nair**, Director of Research, Kerala University, Kariavattom, Kerala, INDIA

**Dr. K. Padmakumar**, Director, Centre for Marine Biodiversity, Kerala University, Kerala, INDIA

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**Dr. J. B. Prajapati**, CEO, SASNET-Fermented Foods, Anand Agricultural University, Anand, Gujarat, INDIA

**Dr. Mervat Foda**, Professor, Dokki, Food Research Institute, Cairo, EGYPT

**Dr. V. Sivasubramanian**, Associate Professor and Head, Plant Biology and Plant Biotechnology, Ramakrishna Mission Vivekananda College, Chennai, Tamil Nadu, INDIA

Accepted full papers will be published in indexed journal  
**International Journal of Agriculture, Environment and Biotechnology**

## Editorial Committee



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Professor & Head  
Department of Computational Biology & Bioinformatics  
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**Ms. Bindu Sunilkumar**, Department of Applied Nutrition and Food Chemistry, Lund University, SWEDEN

## About the Host Organizations:

### Kerala University



In 1957, the Kerala University Act, Act 14 of 1957, was brought into force and the University of Travancore was renamed as University of Kerala. The University had three campuses located in three different parts of the State viz. Thiruvananthapuram, Ernakulam and Kozhikode. In 1968, the University Centre at Kozhikode became a full-fledged University covering the Colleges and Departments located in Thrissur, Palakkad, Kozhikode and Kannur Districts of Kerala. The Cochin University of Science and Technology and the Kerala Agricultural University were set up in 1971 and in 1983, the Mahatma Gandhi University was established. With the establishment of these Universities, the area of the jurisdiction of the University of Kerala has been limited to Thiruvananthapuram, Kollam, Alappuzha Districts and some parts of Pathanamthitta District.

The university has sixteen faculties and forty-one departments of teaching and research. There are eighty-one affiliated colleges. Of these forty, five are aided first grade Arts and Science Colleges, eight are unaided first grade Arts and Science Colleges, two are law Colleges, four Engineering Colleges, two Medical Colleges, seven aided Teachers Training Colleges, six unaided Teachers Training Colleges, one Ayurveda College, one Homeopathy College, two Fine Arts Colleges, one Music College and one College of Physical Education. Besides this, there is an affiliated institute conducting 2-year full time MBA course. The University has recently started an Engineering College in Kariavattom campus. The Department of Computational Biology and Bioinformatics is also located at Kariavattom campus.

### Department of Computational Biology & Bioinformatics



The Department of Computational Biology and Bioinformatics in 2011 is a new generation inter-disciplinary as well as multidisciplinary teaching & research department of University of Kerala, India. The centre offers a two-year innovative M.Sc. (Computational Biology) programme with assistance from University Grants Commission and also 2 one-year M.Phil. programmes in (i) Bioinformatics (ii) Computer - Aided Drug Design. Research is the top priority activity of the Department and the Ph.D. programme of the Department focuses on both computational and life science projects. It sees itself as a knowledge generation community of researchers, teachers and students. The clear aim of the Department is to produce new knowledge in the field of Computational Biology, Bioinformatics and allied areas to further scientific advancement and also to address problems of possible local social relevance.

The Department is supported by a variety of funding from Information Technology Department of Govt. of Kerala; Higher Education Dept, Govt. of Kerala; Dept. of IT, Govt. of India; Dept. of Biotechnology, Govt. of India; Kerala State Council for Science, Technology & Environment, Govt. of Kerala and University Grants Commission, Govt. of India. In 2009, the status of State Inter-university Center of Excellence in Bioinformatics was conferred by the Government of Kerala. In 2010, a Centre for Systems and Synthetic Biology was established and in 2013, the department was awarded major funding by MHRD, Government of India and titled as Ayur informatics and Computer - Aided Drug Design (AiCADD).

## Kerala State Biodiversity Board



Kerala State Biodiversity Board is an autonomous body of the State Government and come under the Kerala State Environment Department. With the Head Quarter at Thiruvananthapuram the Board falls under the provision of the State Biodiversity Act set up in 2008 and the Biodiversity Act of 2002. The KSBB is dedicated into conservation and protection of all flora and fauna of the state. The Board is headed by a Chairman, a Member Secretary and followed by a team of expert Government officials, leading the Board in its all vibrant activities.

## Lund University



The Lund University is located in the city of Lund, which is in the southern part of Sweden close to Denmark and northern Germany. It was founded in the year 1666 and today it is an international centre for research and education with approximately about thirty eight thousand students. Lund University is respected as one of the best universities in Sweden and one of

the 100 best universities of the world with an excellent academic reputation with a large number of visiting professors and international students. Lund University offers around 300 single subject courses, 50 Masters Programs, Ph.D. studies and post graduate research courses in English. Including the education given in Swedish, Lund University has altogether 137 undergraduate and graduate degree programs and 1600 single subject courses. A thousand years of history and academic excellence have created a dynamic and entrepreneurial environment in Lund. The city has striking architecture and in a city of 100,000 people where approximately 38,000 of them are students. The atmosphere is vibrant and stimulating for research and commercial activities with many world leading companies located in its vicinity.

## A Network for a Sustainable Development of Kerala

[www.sustainable-kerala.net](http://www.sustainable-kerala.net)



In a way, Kerala is one of the most appropriate places for developing a network on sustainable development and that also by conducting a seminar on “Sustainable Utilisation of Plant Biomass - Ayur informatics”. Kerala literally is also the land of coconut, a tree (Kalpavriksham which means a tree that gives everything for a living) every part of which is utilised for one or other purpose from food, feed, fuel and manure in a sustainable way from time immemorial. The very wealth of Kerala and also the primary means of living to its people is essentially the plants which are cultivated in the agricultural fields and those plants which are cultivated or growing wild in the forests. So many people, almost 1000 per km<sup>2</sup>, live here in Kerala in a limited area and yet in spite of this, people have successfully created so many natural reserves for the preservation of the biodiversity of plants and animals. Kerala is also a place where not only rationality and superstition, order and chaos, faith and atheism seem to co-exist and all the major religions of the world. It is also a place where rice and spice, rubber and tapioca, coffee and tea, banana and pineapple, mangoes and jackfruit are grown not far away from each other. It is also a place where modern medical doctors and nurses are educated and send to foreign countries for doing bypass surgery in multi-storeyed hospitals while people from foreign countries come in large numbers to meditate and get the treatment of their life at the traditional ayurvedic resorts coming up all over the beautiful hills and all along the seashores. It is also the place where a mountain is not very far from the sea and the paddy fields are not very far from the blue lagoons.

By many standards Kerala is a blessing from heaven to its people – a Gods Own Country. The purpose of the network [www.sustainable-kerala.net](http://www.sustainable-kerala.net) is also to discuss in a humble but rational way how this blessing from heaven the so called “Gods Own Country” can be managed well for the benefit of the future generations. Three international seminars were conducted in the past and the fourth is being jointly organised by the Department of Computational Biology & Bioinformatics, Kerala University, Kariavattom Campus and Dr. S.Vasudev Foundation, Vasudeva Vilasam Road, Fort P. O., Trivandrum, Kerala State, INDIA on 12<sup>th</sup> & 13<sup>th</sup> of December 2014 in association with SASNET-Fermented Foods, Sustainable-kerala.net and Department of Applied Nutrition and Food Chemistry, Lund University, SWEDEN.

## SASNET-Fermented Foods

[www.fermented-foods.net](http://www.fermented-foods.net)



[www.fermented-foods.net](http://www.fermented-foods.net)

SASNET Fermented Foods is a network of food scientists who are in some way interested in fermented foods. Fermentation is a unique process with great potential. It easily satisfies in a positive way a large number of criteria which can be applied to a feasible method of food processing. It is an environment friendly process, consume less energy, produce less waste and easy to manage under house hold conditions as well as in industrial scale. It is a typical example of bio-diversity put into efficient use, could be applied to a wide variety of raw materials to produce a variety of different finished food products. It has the advantage of being generally regarded as safe (GRAS) and at the same time offer immense opportunity for production of products which can be classified as “organic foods”, “natural foods”, “health foods”, “convenience foods”, “ethnic foods”, “nutraceuticals”, “functional foods” and not to forget “food for clinical nutrition”. Fermented foods are manufactured and consumed in practically every parts of the world. Cereals, pulses, root crops, vegetables, fruits, meat and fish are preserved by one or other method of fermentation in some part of the world. The knowledge of making traditional fermented foods has been recognised to be of immense value to the future generations by FAO, WHO and a number of other related agencies. The positive effects of fermented foods with prebiotic substances and probiotic organisms in synbiotic foods are a matter of great attention among the researchers, medical practitioners, food companies and marketing agencies, because the demand for such products is enormous and growing fast day by day. SASNET FF was started in 2003 to develop a forum for scientists of the South Asian countries, Sweden and other countries for exchanging information in the field of food fermentation and its practical application. It also aims to collect and disseminate knowledge on fermentation of foods from South Asian countries and to collaborate with food industries in development and marketing of fermented foods and also to organise conferences, workshops, seminars and symposia.

### For more information contact:

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We are a group of scientists who make  
the network [sustainable-kerala.net](http://www.sustainable-kerala.net)

You are very welcome to

join us to discuss and influence the development of Kerala

Contact: Dr. Baboo M. Nair, Professor Emeritus, Lund University, SWEDEN

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