

**A Two Day National Conference on “Recent Advances in Bio-Technology-
An awareness on Conservation of Medicinal Plants for Healthcare”
(ACMPHC-2K18)**

Department of Bio-Technology organized a two day national conference on “Recent advances in Bio-Technology - An awareness on conservation of medicinal plants for healthcare” during 16th and 17th August 2018 by Dr. Md. Nazneen Bobby. The main concept of organizing this conference is to impart the knowledge on medicinal plants for large scale cultivation and the same is profitable to the local farmers. Creating awareness about the herbs available around our villages, their usage and conservation are the need of the hour. Herbs used as food and medicine, their health benefits and precautions required while consuming needs to be disseminated. Our country is highly populated and having agriculture as the prime occupation, often weeds associated with agriculture field are used as medicine. About 200 species of medicinal herbs are consumed in commercial scale, studies related to these herbs can be shared and awareness can be created for their effective utilization. The deliberations in this national conference certainly provided the knowledge on the traditional cure to our students and faculty.

The conference has been inaugurated with splendid presence of the Chairman, Vignan Group of Institutions, The Vice Chancellor, Chief Guest, Invited speakers, Delegates, Students and Research scholars from various institutions across the country. The chief guest Dr. P. Ratna Giri, President/CEO of Genomix (molecular diagnostics) Pvt Ltd, Hyderabad, Dr. L. Rathaiah, Chairman of Vignan Group, Dr. M.Y.S Prasad, Vice-chancellor, Dr S. Krupanidhi, Dean P & M, HoD, Department of Bio-Technology, Dr. V. Ravi Kumar, Dean Admissions, Dr. Nazneen Bobby, Convener and Dr. T.C. Venkateswarulu, Co-Convener inaugurated the conference by lightning of lamp. Dr. P. Ratna Giri, gave lecture on “Infectious diseases: Diagnostics and role of phytochemicals in therapeutic intervention”. He elaborated on the Moringa extract which cost ~300\$ / ounce. Dr. Ratnagiri gave a demo on how to develop the rapid diagnostic kits to detect malaria, brucellosis and tuberculosis. The guest speaker Dr. M. Narasimham, Scientist, Advanta

Seeds-a multinational company, Hyderabad elaborated on plant tissue culture protocols and its industrial utility to expand to the villages. Dr. L. Rathaiah expressed his interest to educate the farmers to grow the medicinal plants in their fields and also the research related to local issues. Dr. M.Y.S Prasad, Vice-chancellor reiterated that the bark of the plant is being used by tribal people as medicine to cure various ailments. Dr S. Krupanidhi, HoD, Department of Bio-Technology elaborated the medicinal plant, *Vinca rosea* and *Artemesia* for its use in anti cancer therapy and anti-malaria respectively. The inaugural session was closed with Vote of thanks by Dr.T.C. Venkateswarulu, Co-Convener.



In a two day programme, there are eleven invited speakers, five research scholars and thirty posters presented their findings and opinions in the present national conference on the conservation of Medicinal plants for health care. Dr. Rathnagairi, CEO, Genomix Biotech Inc, USA, gave a talk on “Infectious diseases: Diagnostics and role of phytochemicals in therapeutic interventions”. He has given a challenge to all the students to show attention on the invisible molecular combat going on between plants and animals. He said that on one

side plants are producing toxins and antagonistically animals are developing detoxifying enzymes namely cytochrome P450 family. He has also shown Rapid diagnostic test kits developed for various diseases, a few to mention are brucellosis, mycobacterium, malaria, leptospirosis etc. Dr. Rathnagiri displayed the mobile PCR and ELISA units which are operating on battery. The amplification of gene markers can be done only at 65°C instead of at three different temperatures normally being used in conventional PCR. He also reiterated on curcumin- a wonder drug and unravelled that it prolongs the onset of death.



The second invited speaker Dr. Narasimham, Advanta Ltd, Hyderabad delivered a talk on “successful research projects with assured deliverables”. The genetics, agronomical systems, plant tissue culture, molecular markers, data analysis and safety standards of the chosen plant depends on the situation. He emphasised on curcumin organ, meristem and callus cultures and the same has a lot of potential in the world market.



The third invited speaker Dr. Giridhar Surabi, Regional Plant Resource Centre, Buhaneswar gave a talk on “omics approach in medicinal plant”. He reported that there are 237 medicinal plants endemic to Indian subcontinent. The germ plasm of cactus plant is preserved in their Plant Resource centre and he says each cactus plant is sold for R. 30,000.



The fourth invited speaker Dr. Abrar Ahmad, Rampur, UP gave an interesting talk on *Gymnema Sylvestre*, a diabetic plant. This plant produces gymnemic acid which causes hypoglycemic effect.



The fifth invited speaker Dr. P.Santhan, consulting botanist, Durva Herbal Centre, Chennai gave an elaborated presentation on “Microscopic features of medicinal plants”. He emphasized that the *Amla* price is shooting up. Dr. Santhan indicated the benefits of Isabgol (*Psyllium*).



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Five research scholars, M Bhavani (V S U, Nellore), V.Nagini(KLU, Vijayawada), Saha (Bangalore), Keerthi and Nagalakshmi (VFSTR) gave their presentations relating to their Ph.D. work.

The second day the program was started at 9.00 A.M. The sixth invited speaker Dr. Venkateswara Rao, NIBU Hygiene & Care Pvt Ltd, Chennai gave an interesting talk on cosmetics from herbs. He vividly explained the various stages in the development of hair health and hair care. He has shown a picture describing a healthy hair and damaged hair. *Hibiscus rosasinensis* mixed with regular hair oil promote the hair growth.



The seventh invited speaker Dr. P S Shavili khan, Yogi Vemana University, Kadapa delivered an interesting talk on the antioxidant properties of onion. He said that red onion export is going up to Rs. 12000 crores. There are 25000 accessions of onions. A long day

plant namely Krishnapuram onion is rich in anthocyanins and quercetin. He indicated the advantage of using GI tag information.



The eighth speaker Dr. T. Sekhar, Pachaiyappa's College, Chennai gave an interesting talk on conservation of medicinal plants. The sweeping statements made by prof. T. Sekhar are that plant tissue culture is nothing but the development of multiple plants that are True to Type. He also indicated that all plants are having medicinal importance. He described about the bamboo plant tissue culture taken up by his group and supply to the North East for their commercial agriculture. Dr. Sekhar interacted with Vignan Degree & P.G College Palakalur and VFSTR campus students and clarified their queries relating to the entrepreneurship of medicinal plants.



The ninth speaker Dr. R. Bharath Kumar, Rayalaseema University, delivered a talk on *Ex-situ* conservation and sustainable use of medicinal plants. He explained that medicinal plants contribute to cater 80% of the raw materials used in the preparation of drugs.



Dr. Venkatarami Reddy, Yogi Vemana University, Kadapa was the tenth invited speaker. He emphasized on Curcumin as antifibrotic agent. He said the bioavailability of curcumin is least. He indicated that even the dreadful disease namely cystic fibrosis will be cured with curcumin.



The last invited speaker was Prof. R. Venkata Nadh. He was the eleventh speaker in the series and delivered a talk on the isolation of phytochemicals from *Caralluma* genus. He gave a detailed methodology of the extraction of active principles from medicinal plants. The non-polar compounds extracted using the solvents namely N-Hexane are having a lot of importance in phamacognosy. Thirty teams of students of Biotechnology, VFSTR have prepared posters on various topics related to the medicinal plants and explained to guest speakers. Two Young scientist awards, two best oral awards and best poster awards were given to students participated in conference. The national conference was concluded with felicitation to guest speakers and closed with National Anthem.

