### Editorial

Death due to Tuberculosis is a global problem and this problem is aggravated by development of Multidrug Resistant TB (MDR-TB) and Extremely Drug Resistant TB (XDR-TB). In 2014 about 480,000 people developed MDR-TB globally and about 9.7% of these cases were XDR-TB. Govt. of India has started Revised National Tuberculosis Control Programme in 1997 to eradicate TB. RNTCP followed the WHO recommendation of Directly Observed Short Course (DOTS) strategy and reaches over a billion people in 632 districts.

One of the shortfalls of this programme is discontinuation of treatment because of several reasons. Now Govt. of India recognizes that services of private facilities and are taking help of NGOs under this RNTCP Programme. RNTCP of CTD has given direction to all state TB officers to involve community pharmacists in this programme. This is a golden opportunity for the researchers to work hard for developing new drugs from natural resources for treating Tuberculosis.

*Dr. Subhash C. Mandal, Editor.*

### Secretary’s Desk

Dear Friends,

SFE - India has been working on dissemination of knowledge for several years. Four International Congress and four National Convention for the dissemination of knowledge for promotion and development of Ethnopharmacology and Medicinal plant Research has been organized. 12 local chapters have been made with esteemed leadership of active coordinators from different parts of India. I am happy to inform you that the 5th International Congress of Society for Ethnopharmacology and 18th International Congress of International Society for Ethnopharmacology (ISE SFEC - 2018) on “Ethnopharmacology and Drug development – Innovation meets Tradition” is being organized by Faculty of Pharmacy, Dhaka University at Dhaka University, Dhaka, Bangladesh during January 13-15, 2018. Representatives from over 30 countries have agreed to join this congress and share the platform to highlights on several aspects for harmonization of TM.

I would like request all of you to join the ISE SFEC 2018 Congress at Dhaka, Bangladesh and explore the opportunities.

*Prof. Pulok K Mukherjee, Secretary.*

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The 4th Convention of Society for Ethnopharmacology, Kolkata, India (SFE-India), National Symposium on “Ashwagandha” and Ethnopharmacology Conclave on “Uses of Medicinal Plants by Traditional Healers of India – Local Heath Tradition” was organized by School of Natural Product Studies, Jadavpur University, Kolkata during September 9-10, 2017 at Jadavpur University, Kolkata in association with the Society for Ethnopharmacology, India (SFE-India); which was formed in 2013, with the inspiration from Late Dr APJ Abdul Kalam, Former President of India. It is a registered Society and also affiliated to the International Society for Ethnopharmacology.

The venue of the convention was at Gandhi Bhavan, Jadavpur University on 09th September, 2017 and Dr. HL Roy Auditorium, Jadavpur University on 10th September, 2017. This convention has evidenced participation of over 300 participants from different states of the country and had more than 110 scientific presentations including oral and poster session.

Program, participants and scientific interactions during the convention:

In this convention, eminent academicians, scientists, researchers, technologists from universities, industries and other research organizations; representatives of conventional and traditional health care systems, regulatory authorities, cultivators of medicinal plants was participated and also share their experiences on different aspects of Ashwagandha. There were over 18 scientific presentations by some eminent speakers from the field of natural product research and traditional Healers of India for the promotion and conservation of Local Heath Tradition. It was followed by oral and poster presentations by the delegates from different parts of India. This program was the 4th Convention was inaugurated by Dr. Manju Shrama, Former Secretary, Department of Biotechnology, Ministry of Science & Technology, Govt. of India, New Delhi; Principal Advisor to the Dept. Science and Technology, Gujarat& distinguished Women Scientist Chair, NASI, Allahabad and Prof. AS Verma, Pro-Vice Chancellor, Jadavpur University, Kolkata, jointly with. Other respected dignitaries, attended in the program were Dr. C.K Katiyar, CEO Health Care (Tech.), Emami Ltd., Kolkata, Dr. Pratim Banerji, President, Society for Ethnopharmacology, India, Kolkata; Prof. Chiranjib Bhattacharya, Dean, Faculty of Engineering Technology, Jadavpur University, Kolkata; Prof. Biswajit Mukherjee, Head, Dept. of Pharmaceutical Technology, Jadavpur University, Kolkata; Mr. B.K.Sarkar, Vice President, Society for Ethnopharmacology, India, Kolkata; Mr. Indraneel Das, Vice President, Society for Ethnopharmacology, India, Kolkata; Prof. Sitesh C Bachar, Organizing Secretary, 5th SFE Congress, Dhaka; Prof. Pulok K Mukherjee, Organizing Secretary & Director, School of Natural Product Studies, Jadavpur University, Kolkata.
On September 9, 2017; in the inaugural session, the inaugural lecture was addressed by Dr. Manju Shrama, Former Secretary, Department of Biotechnology, Ministry of Science & Technology, Govt. of India, on “Biotechnology - Excitement and Relevance for Human Welfare”. She emphasized on the application of Biotechnology for the betterment of human welfare. She also acknowledged the pivotal role of SFE-INDIA in promotion and development of medicinal plant research in India. The program was followed by some plenary lectures on different aspects of Ashwagandha by eminent scientists and researchers from all over the country for drug discovery & development from natural resources together with their quality evaluation, validation and safety related aspects.

In the plenary lecture session, Prof. Bhushan Patwardhan, Director, Interdisciplinary School of Health Sciences, Savitribai Phule Pune University, Pune, India; highlighted the different aspects for drug development from Ashwagandha. Dr. Mohd. Aslam, Advisor, Dept. of Biotechnology, Ministry of Science and Technology, Govt. of India, New Delhi has highlighted on the different aspects of the biotech initiatives for the medicinal plants and phytopharmaceuticals. Some of the other eminent speakers including Dr. P. Manivel, Acting Director, ICAR-DMAPR, Anand, Gujarat, India; Dr. Neelam Sangwan, Senior Principal Scientist, CSIR-CIMAP, Lucknow; Mr. Ritesh Oza, Product Specialist, BUCHI India Pvt. Ltd., Mumbai has delivered their lectures to highlight different issues on medicinal plant research with special reference to Ashwagandha together with their quality evaluation, validation and safety related aspects.

On September 10, 2017 the second day of the Ethnopharmacology Conclave was inaugurated by Dr. Lalit Narayan, Dy. Director, Medicinal Plant, National medicinal Plant Board, New Delhi jointly with Dr. Prasanta K Sarkar, Director, State Medicinal Plant Board, Govt. of West Bengal, Kolkata & Dr. C.K Katiyar, CEO Health Care (Tech.), Emami Ltd., Kolkata. Dr. Lalit Narayan gave brief introduction about the Ethnopharmacology Conclave and welcomed all the dignitaries and delegates of the conference. Dr. Hariram Murthy G., School of Health Sciences, Trans disciplinary University, Bangalore, India highlighted the importance of Lokswasthya Parampara in light of dwindling numbers of traditional healers across India due to apathy from the Government and Community both. Other dignitaries present in the dies including Prof. Md. Abdur Rashid, Faculty of Pharmacy, Dhaka University, Bangladesh, Dr. Prakash R Itankar, Coordinator, Nagpur Local Chapter, Society for Ethnopharmacology, India & Mr. B K Sarkar, Vice President, Society for Ethnopharmacology, India explained how health care is being given through the traditional healers to the rural India. They also emphasized on importance of protection, conservation, affiliation and certification to the traditional healing practitioners and their practices. Documentation of the traditional knowledge followed by research in the laboratories and relevant clinical trials will help to establish this system in future. Shri. Nirmal Kumar Awasthi, Secretary Chattisgarh Healers Association said it is essential to spread awareness about the value of heritage of Lokswasthya paramparas amongst rural and urban citizens in the country. Dr. Pulok K Mukherjee, Organizing Secretary of Program, gave a comprehensive idea to tackle this problem wherein, he highlighted the importance of holding straight dialogues with the traditional health care practitioners. All the dignitaries appreciated the effort of...
Society for Ethnopharmacology to recognize the Traditional Healers of India for the promotion, development of Traditional Heath Tradition for the conservation of “Lok Swasthya Parampara”. Inaugural Lecture was delivered by Prof. Md. Abdur Rashid, Faculty of Pharmacy, Dhaka University, Bangladesh and his lecture was highlighted on different Chemical and Biological Studies of medicinal plant for drug development of traditional system.

Dr. D. Chamundeswari, Professor, Faculty of Pharmacy, Sri Ramachandra University, Chennai emphasized on different aspects on development of Ethnopharmacology and traditional heath practices in India. Dr. Debjani Roy, Advisor, Quality Council of India, New Delhi, created awareness about Voluntary Certification Scheme for the TCHPs. Dr. Sathiyanarayan L, Associate Professor, Poona College of Pharmacy, Bharati Vidyapeeth Deemed University, Pune, MH also delivered his lecture on the uses of medicinal food plants for the prevention of Diabetes mellitus. Healers representative from different parts of India has also highlighted on their expertise and knowledge for promotion of Traditional Health Practices.

The conference was ended with a valedictory programme with the gracious presence of Dr. P P Lahiri, Registrar, Jadavpur University, Kolkata; Dr. Jayram Hazra, Director, National Research Institute of Ayurvedic Drug Development, Kolkata; Dr. Pratim Banerji, President, Society for Ethnopharmacology, India; Mr. Birendra K Sarkar, Vice-President, Society for Ethnopharmacology, India; Mr. Indraneel Das, Vice-President, Society for Ethnopharmacology, India; Prof. Asis Mazumdar, Director, School of Water Resources Engineering, Jadavpur University, Kolkata; Dr. Sathiyanarayan L., Coordinator, Pune Local Chapter, SFE-India; Dr. Pallab Kanti Haldar, Joint Organizing secretary, 4th Convention: SFE-India. In this session, best oral and poster presentation award were presented to the participants. All of them highlighted on different aspects of medical plant research for the drug discovery & development from medicinal plants with special reference to Ashwagandha and the efforts of Traditional healers in exploring drugs from our local health tradition from India. They also have recognized the contribution of Society for Ethnopharmacology in medicinal plant research and for the promotion and development of herbal medicine in India.

“SFE – Young Ethnopharmacologist Award”

Dr. P K Debnath Memorial Award

Objective: To recognize and encourage the young talented scientist/ researchers from academia and industry working in any area of Ethnopharmacology and Medicinal Plant Research including traditional medicine, phytochemistry, pharmacology etc. or any other research related to promotion and development of medicinal plants and natural products research.

Criteria of selection:

- The selection will be limited to the delegates of the 5th Congress of SFE-India, who has registered for the congress and their paper has been accepted for oral presentation.
- Any participants engaged in research in any field of Ethnopharmacology and Medicinal Plants up to the age of 40 years.
- Selection of the participants for the competition will be based on the abstracts which has been submitted by Young researchers and accepted for oral presentation in the annual SFE congress.
- This award will conferred on the basis of the oral presentation during the congress where the presentation will be judged by the experts from different areas, as decided by SFE-India.

Award carries:
Three best young pharmacologists will be awarded: -

- A Memento
- A Certificate.

Selection committee: Representatives from the Executive Committee of SFE –India along with the experts from different field of Ethnopharmacology and medicinal plant research will be a part of the selection committee, as decided by SFE-India. Decision of the committee will be final.

The award will be conferred in the valedictory function of ISE SFEC 2018 on January 15, 2018.
Programme of ISE SFEC 2018

The congress will be inaugurated at Nabab Nawab Ali Chowdhury Senate Bhaban, Dhaka University, Dhaka 1000, Bangladesh at 3.00 pm on 13th January 2018. Thereafter scientific sessions will start at 5.00 pm and will continue till 15th January 2018.

There will be 19 sessions involving 76 speakers of international repute in the field of Ethnopharmacology from more than 35 countries. A few of them are from Austria, Chile, USA, UK, Brazil, Italy, Thailand, USA, Denmark, South Africa, Argentina, Lebanon, Cambodia, Germany, Malaysia, Philippines, Nigeria, Jordan, Australia, Hong Kong, Mauritius, Switzerland, Italy, Macau, Indonesia, Japan, Myanmar, Nepal, Taiwan, Srilanka, Turkey, China, Vietnam, India Bangladesh etc.

There will be 4 sessions for 55 oral presentations and will be 6 sessions for 150 poster presentations. One special session involving 19 oral presentations for selecting SFE-Young Ethnopharmacologist Competition – 2018 “Prof. PK Debnath Memorial Award” are being arranged.

One business meet cum panel discussion is being arranged for interaction between entrepreneurs for business development in this area.

Other regular features are also included in this programme-

- 13.01.2018: 11.30 am to 1.00 pm: ISE - EXECUTIVE MEETING: CONFERENCE HALL
- 14.01.2018: 5.30 pm to 7.00 pm: SFE - GENERAL BODY MEETING: SEMINAR HALL
- 15.01.2018: 4.00 pm to 5.30 pm: VALEDICTORY SESSION & PRIZE DISTRIBUTION

15 New Herbal Monographs included in the Indian Pharmacopoeia 2018

1. Amarbel
2. Anise Oil
3. Belladona Dry Extract Tablets
4. Citronella Oil (Geraniol type)
5. Citronella Oil (Java type)
11. Milk Thistle Dry Extract
12. Schisandra Dry Extract
13. Schisandra Fruit
14. Sweet Orange Oil
15. Tvak
Amendment of dimensions of Hard Cellulose capsule shells of Indian Pharmacopoeia 2018

Dimensions of Hard Cellulose Capsule Shells

Hard Cellulose Capsule Shells normally used for the incorporation of medicaments are cylindrical in shape but other shapes are also formed for special requirements. The shells of the capsules consist of two prefabricated cylindrical sections, one end of which is rounded and the other is open. The shells are of various sizes, usually designated by different numbers, 5 being the smallest and 000 the largest. The dimensions of hard cellulose capsule shells tend to vary with the content of moisture in them and the conditions under which they are stored or to which they are exposed. The chemical composition of the shells also influences the extent to which exposure to heat and moisture affects the dimensions. Nevertheless, the average conventional dimensions (outside diameter, length and wall thickness – single / double) of the capsule shells of sizes 000 to 5 are provided in the table 1, 2 & 3 for the guidance of users. It should be noted that any measurement of reasonable accuracy can be made only under controlled conditions of temperature and humidity. A temperature between 20° and 25° and a relative humidity between 45 per cent and 55 per cent are recommended.

Table 1: Average Outside Diameter

<table>
<thead>
<tr>
<th>Size</th>
<th>Cap (mm)</th>
<th>Body (mm)</th>
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</thead>
<tbody>
<tr>
<td>000</td>
<td>9.91 – 10.03</td>
<td>9.56 – 9.68</td>
</tr>
<tr>
<td>00</td>
<td>8.49 – 8.61</td>
<td>8.15 – 8.27</td>
</tr>
<tr>
<td>0</td>
<td>7.60 – 7.72</td>
<td>7.26 – 7.38</td>
</tr>
<tr>
<td>1</td>
<td>6.87 – 6.89</td>
<td>6.55 – 6.67</td>
</tr>
<tr>
<td>2</td>
<td>6.31 – 6.43</td>
<td>6.02 – 6.14</td>
</tr>
<tr>
<td>3</td>
<td>5.79 – 5.91</td>
<td>5.51 – 5.63</td>
</tr>
<tr>
<td>4</td>
<td>5.27 – 5.39</td>
<td>5.00 – 5.12</td>
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<tr>
<td>5</td>
<td>4.85 – 4.97</td>
<td>4.59 – 4.71</td>
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</table>

Note: Average special lengths may be decided upon mutually between manufacturer of the Hard Cellulose Capsule Shells and the user.

Table 2: Average Length

<table>
<thead>
<tr>
<th>Size</th>
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<th>Body (mm)</th>
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<td>000</td>
<td>12.5 – 13.5</td>
<td>21.7 – 22.7</td>
</tr>
<tr>
<td>90</td>
<td>11.3 – 12.3</td>
<td>19.7 – 20.7</td>
</tr>
<tr>
<td>0</td>
<td>10.2 – 11.2</td>
<td>18.9 – 19.9</td>
</tr>
<tr>
<td>1</td>
<td>9.3 – 10.3</td>
<td>18.1 – 19.1</td>
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<tr>
<td>2</td>
<td>8.5 – 9.5</td>
<td>17.7 – 18.7</td>
</tr>
<tr>
<td>3</td>
<td>7.6 – 8.6</td>
<td>16.7 – 17.7</td>
</tr>
<tr>
<td>4</td>
<td>6.7 – 7.7</td>
<td>15.7 – 16.7</td>
</tr>
<tr>
<td>5</td>
<td>5.7 – 6.7</td>
<td>14.7 – 15.7</td>
</tr>
</tbody>
</table>

Table 3: Average Wall Thickness

<table>
<thead>
<tr>
<th>Size</th>
<th>Cap (mm)</th>
<th>Body (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>0.095 – 0.125</td>
<td>0.095 – 0.125</td>
</tr>
<tr>
<td>90</td>
<td>0.095 – 0.125</td>
<td>0.095 – 0.125</td>
</tr>
<tr>
<td>0</td>
<td>0.095 – 0.125</td>
<td>0.095 – 0.125</td>
</tr>
<tr>
<td>1</td>
<td>0.090 – 0.120</td>
<td>0.090 – 0.120</td>
</tr>
<tr>
<td>2</td>
<td>0.090 – 0.120</td>
<td>0.090 – 0.120</td>
</tr>
<tr>
<td>3</td>
<td>0.085 – 0.115</td>
<td>0.085 – 0.115</td>
</tr>
<tr>
<td>4</td>
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</tr>
<tr>
<td>5</td>
<td>0.082 – 0.112</td>
<td>0.082 – 0.112</td>
</tr>
</tbody>
</table>

Note: Multiply above values by 2 to arrive at norms for double wall thickness.