APTI BULLETIN

A BI - MONTHLY OFFICIAL PUBLICATION OF
ASSOCIATION OF PHARMACEUTICAL TEACHERS OF INDIA

ISSN 0973-1288

Reg. No: CMM/BNG/DECL/PP/182/2/2002
Vol 18, Issue 110, November - December, 2017

HEADQUARTERS - Bengaluru

INSIDE THIS ISSUE

Institutional News -
IPC
Ph.D Awardees -
Kudos -
Book Review

INSERTIONS

- Collectors Album
- Continuing Education 2018, Calendar

APTI Celebrates Golden Jubilee Year

Golden years of Excellence
1966 - 2016

OFFICIAL DESK

New Years Greetings!

December 22-24, 2017 witnessed the grand celebration of 69th IPC at Chandigarh hosted by Association of Pharmaceutical Teachers of India (APTI). Hope you all have enjoyed scientific deliberations, interactions and professional networking.

The Congress was well attended by students, researchers and experts from academia, industry and regulatory authorities. Looking at the huge number of students, the industrial visits and placement conclave were organized during the Congress. Besides the theme of the Congress, " Skill and will to make and serve quality pill", there were discussions on several issues of contemporary importance.

The panel discussions regarding OTC drugs, re-engineering Pharmacognosy and women forum were also introduced in the IPC.

The churning on professional issues underlined points for immediate attention

I. Dual regulation and uncontrolled growth of pharma institutions.

ii. Effective implementation of Drug and cosmetics act.

iii. Capacity building of Pharma industry for innovations in new drug molecules and API.

iv. Mechanism for continuing education of working pharmacists for professional Skill enhancement.

The respective statutory bodies/ agencies are required to take note of it and implement/frame policies to resolve the problems. I take this opportunity to thank one and all for making 69th IPC a grand success.

Looking to large number of exhibitions and pharma conferences throughout the year, this is the time to think on periodicity and other issues related to organization in order to keep the spirit of IPC alive in the years to come.

The pharma profession is now seven decades old. On introspection, it seems that we the pharmacists have contributed a lot to bring the profession to this level. We were driven by the profession but missed the opportunity to drive the profession. This is high time and I urge upon all the teachers to come forward and contribute in a big way in order to ensure the presence and

respect of pharmacists in the health care system of this great country. We have to ensure participation of pharmacists in all Government initiatives, like Swasthya Bharat in order to make our country healthier.

I once again wish all of you a healthy, happy and professionally prosperous New Year 2018.

Dr. Shailendra Saraf
University Institute of Pharmacy, Dean,
Faculty of Technology,
Vice President, Pharmacy Council of India

INSTITUTIONAL NEWS

Dr. D. Y. Patil College of Pharmacy, Akurdi Pune in its endeavour to provide a platform for thought-provoking deliberations, organized **Savitribai Phule Pune University** sponsored Two days **National conference** on **"Biotherapeutics and Bioanalytical Techniques"** recently, with the objective of sensitizing researchers and academics to various aspects Advancement in Biotherapeutics, Synthetic Immunology, Innovative Therapies for Serious Diseases, Cancer Biotherapeutics, Clinical Biotherapeutics, Analytical Biotherapeutics, Drug Analysis, Bioanalytical Techniques etc.

Dr. Arvind Babu P. Ex-Vice President, Wockhardt Limited, Aurangabad, Mr. U. R. Deshpande Chief Finace Officer ,Dr. D.Y .Patil Educational Complex Akurdi, Dr. N. S. Vyawahare Principal Dr. D. Y. Patil College of Pharmacy Akurdi, Ms. Priyatama V. Powar Co-ordinator, Dr. Shilpa Chaudhari, Vice-Principal were present were present on dias for the inaugural session.

The introductory remarks were made by Dr. N. S. Vyawahare, pointed out Review of Advancements and Impacts of the Bioanalytical Techniques for the growth in the demand for Biotherapeutics and its wide acceptance through out the globe.

Addressing this National Conference on "Biotherapeutics and Bioanalytical Techniques" Dr. Arvind Babu P. said that Biotherapeutics, diverse group of biological products are currently the highest growing group of pharmaceuticals, being a treatment alternative for a variety of chronic and life-threatening disease conditions. In recent years, great strides have been made towards the development of effectual biotherapeutics, as well as in the espousal of cost-effective, efficient and modernized manufacturing processes, and the release strategy for Biotherapeutics products. This drift is expected to hasten in the forthcoming years, as promising fields related to advanced therapies. Despite these progresses, there are still knowledge gaps , technical and regulatory hurdles that can thwart the approval process of these Biotherapeutics products.

The National Conference on "Biotherapeutics and Bioanalytical Techniques" featured technical sessions addresses by experts, Dr. Mukul Pore Director INTOX Pvt. Ltd. Pune; Dr. Mohan Wani, Scientist-F, NCCS Pune; Dr. Virendra Gajbhiye and Dr. Vandana Ghormade of Agharkar Research Institute Pune; Dr. M S Ganachari KLEU's University Belgaum; Akshay Shirodkar, Emcure Pharmaceuticals Limited Pune; Dr. Dipak Kolte, Sanjeevani Multispecialty clinic Pune; Dr. Anita Ayre, VES College of Pharmacy Mumbai; Dr. S. D. Swant, Principal Smt. Kashibai Navale College of Pharmacy Pune; Dr. P. R. Mahaparale Government college of Pharmacy Aurangabad.

Poster presentation evaluation was carried out by Dr. S. D. Swant Smt. Kashibai Navale College of Pharmacy Kondawa Pune and Dr. P. R. Mahaparale Government college of Pharmacy Aurangabad, where Bharati Vidyapeeth Deemed University Poona College of Pharmacy, Pune and MET's Institute of Pharmacy (MET IOP), Bhujbal Knowledge City, Nashik bagged first and second prize respectively.

Ms. Pragya Gigoo summarized all the session and Mr. Abhishekh Swami proposed a vote of thanks.

****

A-One Pharmacy College, Anasan celebrated **Pharmacy week**. The celebration was a part of 56th National Pharmacy Week celebrations. The theme selected for this year was **"Know Your Medicine: Ask Your Pharmacist".** The main objective of Pharmacy week celebrations was to create awareness among the public, other healthcare providers and the authorities about the theme and role of pharmacist in general.

All the students actively participated in the celebrations.

On the first day an inauguration ceremony was conducted. After inauguration ceremony different programs like Quiz competition, Elocution competition, Rally, Poster Presentation, Wall Painting, Tree Painting etc were organized.

Day 1: The Inaugural function was started at 9.00 AM with introduction speech by Dr. Neha Tiwari. It was followed by Welcome address by Dr. Pragnesh Patani, Principal (I/c), A-One Pharmacy College. He spoke about the theme of the celebration and the need to spread awareness about role of pharmacist in patient awareness and responsible use of medicines.

After the welcome address there was floral welcome of dignitaries. Dr. Pragnesh Patani, welcomed the Chief guest of inaugural function Mr. Gilbert Macwan, Registrar Gujarat State Pharmacy Council, Gujarat.

Subsequently there was prayer and lighting of the lamp. The dignitaries present on the dais inaugurated the program by lighting the lamp.

Followed by lamp lighting Mr. Gilbert Macwan, Registrar Gujarat State Pharmacy Council, Gujarat, addressed the gathering. He spoke about the need of pharmacist in educating people with medicine. He congratulated for organizing the program and also wished success of the programme.

The inauguration ceremony ended with national anthem.

Elocution competition was conducted by Dr. Neha Tiwari. 6 students participated in the competition. The topic for Elocution Competition was " Know your Medicine: Ask Your Pharmacist". B.Pharm 1st sem students participated in this competition. All participants were in high spirit during the competition. All spoke well about the topic given for elocution competition. The competition was judged by Dr. Sanjesh Rathi and Mrs. Vanita Marvaniya.

Panchal Krishi, Patel Mayank and Lohiya Nisha secure 1st, 2nd and 3rd rank respectively.

Day 2: On second day first programme poster presentation competition was conducted by Mrs. Vanita Marvaniya. There are 18 participants present their poster in competition. Their posters judge by Mrs. Bansi Zalavadiya and Mr. Harsh Chunara.

Patel Mayank, Chauhan Sandhyakuwarba and Rawal Himali secure 1st, 2nd and 3rd rank respectively.

The second programme of the day was Rangoli Competition. All participants were at their creative best during the competition. There were 6 teams each team comprising three students. The designs made by student were mind blowing. Each rangoli spoke a thousand words.

Day 3: Day three started with quiz competition where question regarding general knowledge was asked by coordinator Dr. Sanjesh Rathi, HOD Pharmaceutics Department, A-One Pharmacy College. There were Four teams in the event. Each team comprising four students. Each team named from A to D. There were total 20 questions asked. Each team get 5 question and the team who gave maximum correct answer was declared winner of the competition. Quiz Competition judge by Mr. Hardeepsingh Banwait and Mrs. Seju Patel.

After a very interesting and closely contested Quiz, Team A emerged as the winners.

Drama competition was conducted by Mrs. Priya Pandey. Only one group of students participate in the competition. The subject of their drama was "Beti Bachao Beti Padhao".

The drama was beautifully presented by the students.

Day 4: Day three started with the Tree painting competition. This competition was conducted by Mrs. Bansi Zalavadiya. There were 4 teams participate in this competition. Students shows their talent on tree painting. Their talent was judge by Mrs. Rajwinder Kaur and Mrs. Priya Pandey.

Himali and Group, Riddhi and Group and Dhruvil and Group won the competition 1st , 2nd and 3rd rank respectively.

Second event of the day was wall painting conducted by Mr. Harsh Chunara. There were total 5 teams took part in wall painting. The event was judge by Dr. Sanjesh Rathi and Dr. Neha Tiwari.

Himali, Simaran and Group and Vishwajeet and Group was won the competition with 1st, 2nd and 3rd rank respectively.

Last day of Pharmacy week celebration was kick started by Pharma rally. The rally was organized to create awareness among the public about the theme "Know Your Medicine: Ask Your Pharmacist". The rally was started from college premises and ended at Anasan Gam. The rally was flagged off by Dr. Pragnesh Patani, Principal (I/c), A-One Pharmacy College. All students and staff members participated in the rally. Students were holding attractive and informative posters.

The valedictory function was held after pharma rally. The valedictory function was started with congratulating the students for successfully completed pharma week-2017 and for their actively participation in all the events. The chief guest of valedictory function was Mr. Montu Patel president, Gujarat State Pharmacy Council, Ahmedabad. Shri N.M. Zala Trustee A-One Pharmacy College, Anasan and Dr. Pragnesh Patani, Principal (I/c) A-One Pharmacy College.

There was floral welcome of dignitaries. Shri N.M. Zala, welcomed the Chief guest of valedictory function Mr. Montu Patel, President, Gujarat State Pharmacy Council, Ahmedabad. Subsequently there was prayer and lighting of the lamp. The dignitaries present on the dais inaugurated the program by lighting the lamp.

Followed by lamp lighting Mr. Montu Patel, President, Gujarat State Pharmacy Council, Ahmedabad, addressed the gathering. He spoke about the need of pharmacist in Society. He congratulated for organizing the program and successfully completed the program.

****

A one day National seminar on **"Current trends in Pharmaceutical Sciences"** was organized by **Sri Venkateswara College of Pharmacy,** Chittoor, Andhra Pradesh. The seminar was aimed to provide the knowledge on recent developments in pharmaceutical research to undergraduate and post graduate students.

Total 360 delegates registered for the seminar and 30 papers were presented in various scientific sessions.

The programme was inaugurated by the Chief Guest Dr. Paul Ravikumar, Medical Superintendent, District Head Quarters Hospital (Government Hospital), Chittoor, Guest of Honor and Dr.Bhaskar Patel, Professor & Principal, Sri Venkateswara College of Engineering and Technology, Mrs.V. Sujatha, Principal, Sri Venkateswara College of Nursing, Dr.K.Bhaskar Reddy, Professor & Principal, Sri Venkateswara College of Pharmacy, Dr.Lakshmi Sivasubramanian, Professor & Vice Principal and Dr.K.Kavitha, convener of the seminar shared the dias.

The seminar was presided by Dr.K.Bhaskar Reddy, Professor & Principal,

Sri Venkateswara College of Pharmacy. He welcomed the gathering and briefed the delegates about the seminar. He highlighted the importance of attending such programmes for updating their knowledge.

Dr. Paul Ravikumar enlightened upon the significance of innovations in pharmaceutical sciences. He also highlighted the importance of pharmacists in clinical sector.

In the first session Dr. Manasa Deepa R, Professor & HOD, East West College of Pharmacy, Bangalore delivered a lecture on "Biopharmaceutics and Pharmacokinetics Aspects in Pharmaceutical Formulations". In the second session Dr.Santosh S, MBBS, DLO, DNB, FMES (POL), Fellowship in Laryngology, Consultant-ENT and Head & Neck surgery, Columbia Asia Hospital, Bangalore gave an interesting lecture on "Clinical Prospective and Outcomes in Health Practice". Finally we had a talk on "Antibiotics Policy" by Dr.Kishore, MBBS., MS., Professor and HOD, Department of Microbiology, RVS Institute of Medical Sciences, Chittoor.

Participants had good interacction with speakers and clarified their doubts. Dr.K.Bhaskar Reddy, Principal presented momentoes to the speakers.

In the afternoon session, students from various colleges presented their papers by oral and poster means in various aspects of pharmaceutical research and development.

The seminar was attended by more than 350 delegates from different colleges. Total of about 30 papers were presented in different specializations. The preseantations were evaluated by the senior faculty and 2 best oral and poster preseantations were awarded.

In the evening, on stage cultural competitions were conducted and prize winners were awarded with certificates and medals. The programme was concluded with vote of thanks by Dr.K.Kavitha, Convener of the Seminar.

****

SVKM'S Dr. Bhanuben Nanavati College of Pharmacy was conferred upon the Best Industry Linked Pharmacy Degree College (Established college category) National award by AICTE- CII Survey 2017 at a glittering ceremony on December 08, 2017 at New Delhi. This is the second time that the college has been awarded this prestigious award. This award is an outcome of a strong industry-academia alliance that the college has developed and nurtured over a decade. The college fosters an atmosphere that promotes faculty training in industry, has a strong team of industry members/stalwarts on board of the short-term skill development add-on course. The college has a strong industry connect in terms of consultancy projects, collaborative research and weekly scheduled industry guest lecture sessions. Our faculty is involved in training industry executives to strengthen their technical knowledge. Dr. Munira Momin, Principal and Dr. Sujata Sawarkar, Associate Professor received the award at 7th AICTE-CII Industry- Academia Education summit at New Delhi. We appreciate the support of SVKM Management and express our heartfelt gratitude towards all our stakeholders whose active participation has culminated into this prestigious award.

****

The 56th National Pharmacy Week was celebrated with a lot of enthusiasm in **MLR Institute of Pharmacy, Dundigal, Hyderabad, Telagana State.**

As part of these celebrations**,** Department of Pharmacy Practice, MLR Institute of Pharmacyhad organized a free medical camp in association with Landmark Hospitals, MaxivisionSuperspeciality Eye Hospitals and Clove Dental Hospital at Village Panchayath Office, Dundigal, a village which is proximate to the college. The camp was inaugurated by Mr. Marri Rajasekhar Reddy, Secretary, MLR Group of Institutions. Dr. K. S. Murali Krishna, Professor &Principal, MLR Institute of Pharmacy, Dr. Madhu Vasireddy, Manager, Landmark Hospitals, Hyderabad and Mr. Kavali Ganes**h**, Sarpanch, Dundigal Village were also present on this occasion.

A team of doctors from various departments (General Medicine, Orthopaedics, Ophthalmology and Dental) of the above mentioned three reputed hospitals took active part in the camp. The camp was witnessed an overwhelming response from the poor and needy as 162 patients were examined, free medicines were distributed and suggestions were given if further diagnosis and treatment required. Complete eye check-up was carried out and suggested surgeries in case of cataracts. Bone Density test and other basic examinations including Dental check-up were done.

True to the theme of 56th national pharmacy week, "Know Your Medicnes - Ask Your Pharmacist", the Pharm D students have involved in free distribution of medicines and patient counselling under the supervision of faculty of Pharmacy Practice department.They have counselled the patients with the help of charts on various diseases & general conditions. Patient information Leaflets with complete information including various preventive or prophylactic measures were distributed. Free medications as per doctor's prescription, Multi-Vitamin supplements and ORS sachets were also distributed.

On 2nd day we had arranged guest lectures by eminent personalities to enlighten & inspire Pharm. D students. The session was started by Dr. Akhilesh Kumar, MBBS, MD, PGPC, PGD, Assistant Civil Surgeon, ESIC Model Hospital, Sanathnagar, Hyderabad on the topic "rational Use of Antibiotics". He spoke about the gross misuse of antibiotics and its grave issues such as development of antibiotic resistance and emphasized the rational use and discussed measures for safe practice of antibiotics and to reduce the antibiotic resistance.

In the next session, Dr. M. Sunitha Reddy, Ph. D, FPGEE, NABP (MEM), RPH.USA, Faculty, Centre for Pharmaceutical Sciences, JNTUH, delivered on "Medication Errors – Role of Clinical Pharmacist in Case Studies". She shared her experiences while practicing as a pharmacist in USA. Some case studies have been discussed at the end of the programme that made the session so interactive and beneficial for the students. Both the sessions were ended by felicitating the guest speakers by the Principal and Head of the Department, Department of Pharmacy Practice.

During the post lunch session, patient counselling and clinical skills events were conducted for students of Pharm. D.

A one day Awareness Programme was organised for English and Telugu medium 10th class students of Zilla Parishad High School, Dundigal. The camp was inaugurated by Dr. K. S. Murali Krishna, Professor and Principal of MLR Institute of Pharmacy and Mr. Kishan Rao, Head Master of the high school.

Awareness sessions were conducted by Pharm. D students. During pre-lunch session three programmes such as i) Heart Attack: Identification, its prevention, an episode enacted by students narrating the measures of first aid for the patients with heart attack and also a live demo on Cardiopulmonary Resuscitation (CPR) - a commonly used and vital life saving technique; ii) General Hygiene: Highlighting various hygiene measures in our day to day life to have a healthy life and an exclusive session was held on women hygiene for girl students; iii) Dengue: Narrating the causes, symptoms and preventive measures in the form of a small skit performed by students.

In the post lunch session, blood grouping for all130 students of 10th class was done and Body Mass Index (BMI) was determined. Those who are found having abnormal values were counselled suitably.

Finally, the Management of MLR Institute of Pharmacy has donated a number of books to the high school library with an intension of inculcating the habit of reading books as well as to improve and update their knowledge of rural and semi -urban students.

****

The **International Conference** on, "**New horizons in the field of Nanomedicine**" was organized by **SVKM's NMIMS School of Pharmacy and Technology Management (SPTM)**, Shirpur campus. The event is sponsored by Association with Society of Pharmaceutical Education and Research (SPER), Gwalior.

The program started with welcoming of all the guests and participants in an inaugural function. There was an overwhelming response for the conference with 208 delegates from all over India.

Dr. Bidya Sahay, Advisor to Chancellor, NMIMS was the Chief Guest for the inaugural session and the guest of honour was Dr.Pradeep Visen, Secretary, SPER and Dr. R. S. Gaud, Director MPTP Shirpur Campus addressed the gathering with his presidential address.

The welcome address of the session was given by Dr. Bala Prabhakar, Dean SPP SPTM, Mumbai. She expressed her views about Nanomedicine as the future of health survivor. She specially mentioned that coming year will be of nanomedicine practice and we are on the verge of Nano-Revolution. Also she welcomed all the delegates and participants.

The Shirpur campus newsletter issue- june 2017 was released at the hands of Dr. Bidya Sahay.

The chief guest of the conference Dr. Bidya sahay expressed his views concerning the theme of the event. He mentioned various healthcare cases and its correlation with the advancement in the field of Nanomedicine.

Dr. Upendra Nagaich, Secretory SPER, presented the preamble to the conference. He introduced the SPER to all participants with special reference to its vision, mission and future pathways.

Amongst the dignitaries off the dais were Dr. R. Vyas, Deputy Director, MPTP Campus; Dr. Nitin Choube, Associate Dean MPSTME; Mr. Rajeev Dalal, Deputy Registrar, MPTP Shirpur and Mr. Rahul Dande, Chief Accountant and Administrator, MPTP Shirpur.

Thereafter, the presidential address was charged by Dr. R. S. Gaud and in this he mentioned that our research and development activities must have to be focused on the alternative medicines.

The vote of thanks were extended by Dr. Ashwini Deshpande, Associate Dean SPTM, Shirpur. During vote of thanks she expressed gratitude towards all helping hands joined together to make this conference a real internationational event. She obliged to Hon. Chancellor, Shri. Amrishbhai Patel and the Vice Chancellor Dr. Rajan Saxena SVKM's NMIMS, and all office-bearers of SVKM NMIMS. She also thanked SPER for sponsoring this event. The entire event was compared by Dr. Payal Dande.

Afternoon session (Plenary sessions)

First plenary lecture was delivered by : Dr. Pradeep Visen, from Risk Factor Modification Centre, St. Michael's Hospital University of Toronto, Canada. He delivered lecture on , "Clinical validation of medicinal herbs in the management of type-2 diabetecs: A novel approach"

The Second plenary lecture was delivered by Dr. P. K. Mishra from ICMR, NIREH, Bhopal. He delivered lecture on , " Nanoengineered dendritic cells for TRICS in environmental associated cancers"

The last plenary lecture was delivered by Dr. Santosh Bothe MPSTME Shirpur. He delivered lecture on , " Nanomdicines and cognitive care" .

After plenary sessions all the participants and delegates were moved for lunch.

In the afternoon session form 2.00pm onwards oral presentations were arranged in 5 halls. More than 50 presentations were there for discussion with chairpersons and audiences.

The presentations were duly evaluated and two best presentations were declared in the valedictory session. The best oral presentation with first prize was given to Dr. Prakash Soni, from SGSITS Indore and second prize was given to Ms. Arti Belgumwar, Associate Professor, SVKM's Institute of Pharmacy, Dhule. The winners of oral presentation received a trophy and certificate. All the participants have received participation certificates.

Valedictory session was charged by Dr. Sateesh Belamkar and the glimpses of the event from morning to the end were shown to the attendees.

Deep sense of appreciation for the efforts taken by Associate Dean Dr. Ashwini Deshpande and Co-Convener of this event Dr. Dinesh Kumar Mishra with the core committee members for successful conduction of this event.

The conference proved to be grand success and a great platform for networking amongst delegates from across the globe with conducive atmosphere, excellent weather and delicious food.

****

On the eve of most honoured **Founder Chairperson Dr. K. Veeramani's 85th birthday celebrations** to promote scientific temperament among the students, **PERIYAR SCIENCE EXPO – 2017** was organized by **Periyar College of Pharmaceutical Sciences**, Tiruchirappalli. Prof. Dr. R. Senthamarai, Principal welcomed the guests and emphasized about Founder Chairperson social services and the importance of scientific temperament in day to day life. The expo was inaugurated by Dr. H. Muthurajan, Dean Research, Periyar Maniammai University, Vallam Thanjavur. The Chief Guest highlighted the importance of Scientific inventions and Patenting. Dr. Ismail, Professor Emeritus and Prof. Dr. G. Krishnamoorthy, Vice Principal of the college offered felicitations during the programme. Vote of thanks was offered by Dr. P. Kavitha, Dept. of Pharmaceutics. Around 60 exhibits were displayed by the students and more than 1000 students visited from different institutions.

****

A two day '**International Conference on Advanced Pharmacy Practice**' on the theme '**Evolving Role of Clinical Pharmacist**' was organized by **Acharya & BM Reddy College of Pharmacy**, Bengaluru , at **Acharya Institutes Campus**, Bengaluru. The program was organized in association with the Indian Pharmaceutical Association, Peenya Branch. The two-day program was attended by over 650 delegates, representing over 43 institutions across India.

The main resource persons were – Dr. Chandra Sekar, Professor, University of Findlay, USA; Dr. Christine Birnie, Dean, Wegman's School of Pharmacy, USA; Dr. Luke Anthony Fawcett, Pharmacy Manager, Mercy Medical Centre, USA; Dr. Dallas Smith, Peace Corps Volunteer, Cambodia; Ms. Nelly Chan-McAllister, UK Licensed Pharmacist & Adjuct Faculty, Acharya & BM Reddy College of Pharmacy; Mrs. Anila KN, Lecturer, Amrita School of Pharmacy, Kochi; Dr. Grace Mary John, Clinical Pharmacist, Believers Church Medical College Hospital, Kerala; Dr. Cijo Oomen, Clinical Pharmacist, Aster MIMS Hospital, Kerala; Dr. Sachin Jadhav, Consultant Hematology and BMT, Fortis Hospitals, Bengaluru; and Dr. Keerthy Sree G, Clinical Pharmacist, Fortis Hospitals, Bengaluru. The speakers detailed about new roles of clinical pharmacists, like pharmacist run coumadin clinics, antimicrobial stewardship, community care activities and criticial care activities.

Dr. BG Nagavi, Senior Consultant, HESDAR Centre, Mysore delivered the key note address, and stressed on how clinical pharmacists should continue their efforts to make a change in the way healthcare services are delivered. Dr. Chandrasekhar Chikkamuniyappa, CEO, People Tree Hospital, the chief guest for the valedictory function, stressed on the importance of Clinical Pharmacist in the multidisciplinary healthcare team to improve patient outcomes.

A research presentation session, PharmaSEE, was organized along the conference. A total of 12 Oral Presentations and 105 poster presentations were done. A spelling bee competition, SpellRx, was organized for student delegates. The two-day conference was a great success. Delegates could learn about new activities performed by clinical pharmacists in various countries. In addition to the lectures, a demonstration of an instant INR check apparatus was also performed.

****

.

Medical devices and diagnostics is the promising career in MedTech Industry. To create awareness about the innovations and opportunities in the field, Pharmaceutics department of **Dr. D.Y. Patil Institute of Pharmaceutical Sciences and Research**, Pimpri, Pune organised a **Two day National level seminar** on **"Medical Devices and Diagnostics: Current Need and Opportunities in India"**. This seminar was sponsored

by Indian Council of Medical Research [ICMR]. The seminar witnessed the participation of more than 120 professionals and students from diversified fields such as Pharmacy, Engineering, Medicine and Biotechnology.

As conveyed by Dr. Sohan Chitlange, Principal, Dr. D. Y. Patil Institute of Pharmaceutical Sciences and Research, the seminar was organized with the intention of creating awareness about current need, challenges, opportunities and various innovations in the medical device and diagnostics industry in India

Dr. Debjani Paul, IIT Mumbai, delivered a talk on "Microfluidic devices for point of care diagnostics emphasizing on shape based detection of sickle cell disease", Dr. Anish Desai, Director Medical Affairs, Johnson & Johnson Medical, Mumbai gave an overview on "Medical device regulations and its clinical investigations", Dr. Ajay Pitre, Managing Director, Pitre Business Ventures Pvt Ltd, Pune talked about "Innovation in MedTech Industry_Opportunity, Challenges & Philosophy", Dr. Vandana Patravale, ICT, Mumbai, discussed about "Drug eluting coronary stents: Challenges, opportunities and Industrial translation", Dr. C. Subramaniam, IIT Mumbai, gave an information about "Nanotechnology in Healthcare and Biomedical technologies" and Dr. Rupali Kale, DYPIPSR, Pimpri, Pune delivered a talk on "Biodegradable devices for medical applications: Emerging challenges and Industry need."

Formal presentations were followed by interactive session which gave the participants an opportunity to interact with the eminent speakers.

Under the guidance of Hon. Dr. P. D. Patil, Chairman, Dr. D. Y. Patil Vidya Pratishthan Society, Dr. Sohan Chitlange, Dr. Satish Shirolkar and Dr. Rupali Kale organised the seminar. Dr. Sanjeevani Deshkar, Prof. Jayashri Mahore and Prof. Tanaji Nandgude coordinated the seminar.

****

National Pharmacy Week was at the **M. M. School of Pharmacy**, Sadopur-Ambala. Dr. Harish Sharma, Hon'ble Vice Chancellor MMU, Sadopur inaugurated the event by tossing a coin for a cricket match between B Pharm III and I semester on first day. In his inaugural address, he deliberated on the event's theme **"Know Your Medicine-Ask your Pharmacist"**. He stressed upon self medication and excessive use of antibiotics and the importance of full course of medicine in daily life. During the week long celebrations, many extracurricular activities were conducted including sports, fun games, cultural and a health awareness camp in Jharmari village. On the second day, a health awareness camp was conducted where students conveyed important information to the residents of the village regarding dengue, diabetes and other cardiovascular diseases. Last day of the weak was dedicated to various cultural performances. Prof. Vipin Saini, Vice-chancellor, M.M. University, Solan and Dr. Manish Sharma, Principal, M. M. School of Pharmacy, Sadopur were the guest of honors of the valedictory function. The valedictory address was given by Registrar Prof Raman Gupta. A vote of thanks was extended by coordinator Ms. Prerna Sharma. All faculty members including Dr. Rupesh K. Gautam, Dr. Disha Arora, Mr. Baljinder Singh, Ms. Isha Rani, Mr. Vaibhav Sharma and Ms. Lovely Chabra co-ordinated all related activities.

****

AICTE sponsored **International Seminar** was held in **Shri Vishnu College of Pharmacy,** Bhimavaram, AP, from 26th to 27th Dec 2017 on **"Computational tools for Advancing Entrepreneurial Skills in Pharmacy Students"**. The International speakers attended for this event were Prof. M. Chandra Sekhar from Findlay University USA and Prof. P. Mallikarjuna Rao, Associate Dean, IMU, Malaysia. National speakers attended for this event were Sri. M. Satyanarayana Raju, Sri. A.Venkata Chenulu and Mr. M. Kodandaram, Ex.- Director DCA (AP), Director, Dr.D.Basava Raju and Principal Dr. K.Prasad inaugurated the event. The speakers delivered fundamentals of Entrepreneurship very effectively and the knowledge which they shared was very useful to students who want to see themselves as entrepreneurs and examine their individual careers as start-up companies. Those who do so will be prepared to succeed in the future delivery model of health care and achieve professional satisfaction.

Prof. Chandra Sekhar has contributed greatly to this seminar with his lecture on "Role and Responsibility of Pharmacist and its Impact on Health Care". He explained, how a Pharmacist in India can become a major health care provider, what difference a Pharmacist can make in patient caring. The difference in role of Pharmacist in USA and India

demonstrated in his lecture to make aware the students about Western system of Pharmacy Education. Prof. Mallikarjuna Rao delivered talk on "Entrepreneurial Skills Development & Nurturing" and in this talk he demonstrated various online tools for advancing the Entrepreneurial skills in Pharmacy students. Students who attended the session have shown a very good response and happy that they have learned some techniques and strategies for enhancing entrepreneurial skills in health care to encourage the creation of new and innovative health-related services, technologies, and therapies.

During the Valedictory function Director Dr.D. Basava Raju delivered his message that seminar on given theme was executed properly i.e., it helped the students to develop a range of entrepreneurial- skills relating to problem solving, communication, teamwork, research, and recognizing opportunity. Principal Dr. K.Prasad proposed vote of thanks and handed over participation certificates to the delegates. He also thanked the management of Sri Vishnu Educational Society and Dr. B.V.Raju Foundation for providing the necessary facilities and constant encouragement for the success of the seminar.

****

MJ College, Khoka, Bhilai, Organized National Pharmacy Week, in this event collegeg has organized many indoor and outdoor activities such as rangoli competition, collage, Poster, Quiz competition, health survey, guest lecture and health camp and awareness act related to the theme "Know your medicines: ask your pharmacist. Throughout the week college has engaged full time for upliftment and awareness about our profession.

MJ College has recently started this session which was successfully conducted with the help of College management, staff and beloved student.

****

Guntur, Lam: Dr. Rama Rao Nadendla, principal conveyed that **Chalapathi Institute of Pharmaceutical Sciences** (CLPT) in association with ISPOR-India Amravati regional chapter conducted National conference on Health Economics and outcomes Research on 15th December, 2017 based on the theme **"Revolutionizing Health care across India"**. The dignitaries graced the occasion were Chief guest Prof. Chandrakanth Kokate, vice-chairman, Association of India Universities; Dr.Jitendar Sharma, advisor(Health), Govt. of Andhra Pradesh and CEO of Andhra Pradesh Medtech Zone, Visakhapatnam; Dr. D.S. Raju Naidu, Medical Superintendent, Govt General Hospital, Guntur and Guests of honors viz., Mrs. Akriti Chahar Tomar, consultant, Healthcare technology assessment, WHO New Delhi; Dr. Areiba Arif, HEOR analyst, Novaritis Healthcare Pvt. Ltd., Hyderabad; Dr. Srinivas Sankar Prasad, convenor, taskforce committee pharmacy and biotechnology; Dr.Krish , executive, gateway to Health Inc., Sri Y.V. Anjaneyulu, president, Chalapathi Educational Society, Guntur, Mr. N.V.Rama Rao, associate professor, Mrs. P.Sharmila Nirojini, associate professor, Pharmacy practice Department and Principal, Dr. Rama Rao Nadendla to were present. The dignitaries unveiled the conference souvenir CD's and CLPT news letter. Around 650 delegates from 30 pharmacy colleges with 120 posters presentations were actively took part in this conference. Post lunch session, delegates were trained on hands-on-training on meta-analysis and systematic review on various clinical trials documented data and health economics by Mrs. Akriti Chahar Tomar, and Dr. Areiba Arif, HEOR analyst, Novartis Healthcare Pvt. Ltd., Hyderabad. Eventually, all the dignitaries were felicitated in particular, Prof.C.K.Kokate, and Dr.D.S.Raju Naidu garu.

Moreover, on 18th December 2017, Dr.Rama Rao Nadendla, principal, CLPT, Guntur received a honor Best Pharmacy Teacher of Year 2017. The award granted by Dr. William Carey, president, and Dr.A.Raghurama Rao, secretary, Pharmacy teacher trust, Hyderabad and other fellow eminent personalities and teachers of pharmacy profession at Jawaharlal Nehru Technological University, Hyderabad.

****

"Regulatory affairs play vital role in Pharmaceutical Marketing" mentioned Dr. Sangamesh Puranik, Head- Regulatory Affairs, Anthem Bio Sciences Pvt. Ltd. Bangalore while delivering the keynote address in the inaugural function by lighting the lamp at the National Seminar on **"Recent Trends in Regulatory Affairs"** at **Srinivas College of Pharmacy**, Valachil, Mangalore organised in association with Rajiv Gandhi University of Health Sciences, Bangalore & Indian Pharmaceutical Association, D.K District Local Branch, Mangalore on 11th November 2017.

Dr. A.R.Shabaraya Principal and Director, Srinivas College of Pharmacy and President, IPA, D.K.District Local Branch in his presidential remarks called upon the delegates that novel technology is the need of the day and to prescribe standards, regulatory affairs play vital role and also appreciated the delegates for taking keen interest in the areas of Pharmaceutical industry.

Ms. Meghna D. K, Asst. Manager, Regulatory Affairs, Sequent Scientific Laboratories, Bangalore gave a talk on regulatory approvals for ANDA and generic drugs. Mr. Krishnananda Kamath, Asst. Professor, Dept. of Pharmaceutics, Srinivas College of Pharmacy gave a talk on SUPAC guidelines.

Dr.Mohammed Gulzar Ahmed, Principal, Yenepoya Pharmacy College, Deralakatte, Mangalore was present. Dr. E.V.S Subrahmanyam, Professor, Srinivas College of Pharmacy and Vice President, IPA, D.K. District Local Branch, welcomed and introduced the guests.

Ms. Chaitra & Ms. Vijetha anchored the programme. Mr. Viresh K Chandur proposed vote of thanks. 150 delegates from Pharmacy colleges of D.K district attended the programme.

****

Indian Pharmaceutical Association, Dakshina Kannada District, Local Branch, Mangalore in association with Srinivas College of Pharmacy, Valachil, observed **National Pharmacy Week 2017**. Sri. Shankar Naik, Asst. Drugs Controller, Mangalore was the chief guest of the inaugural function on 06.12.2017. He has advised the Pharmacy students to develop good habits and discharge their responsibilities to achieve their goals. He has further stressed the importance of practicing professional ethics and cautioned them against the use of banned, harmful drugs. On this occasion Srinivas College of Pharmacy bulletin was released.

Shri. P. Panduranga Rao, Elected Executive committee, Member, Karnataka, state Chemist & Druggist Association, Bangalore was felicitated for his services as community pharmacist. While speaking on this occasion, Mr. Rao called upon the pharmacy students to develop sound knowledge in pharmacy with a special attention to patients needs.

Dr. A.R.Shabaraya, Principal, Srinivas College of Pharmacy & President, IPA, Local Branch, Mangalore in his presidential remarks exhorted the young Pharmacists to uphold the theme for healthy India by actively participating in health awareness programmes. On this occasion Mr. Shreyas K.N, II M.Pharm was felicitated for his achievements in R.G.U.H.S Athletic championships.

Dr. Sandeep Bekal, Professor & Vice Principal, Karnataka Ayurveda Medical College, Mangalore who was invited as guest of honour gave a talk on "Non Pharmacological Management of diseases". Dr. Satish S, Asst. Professor, Srinivas College of Pharmacy Coordinated the events of the programme.

Dr. E.V.S. Subrahmanyam, Professor, Srinivas College of Pharmacy & Vice President IPA welcomed the guests and highlighted the significance of observing the National Pharmacy week every year to bring awareness of pharmacy profession to the society.

Ms. Agnes Jain Rose & Ms. Minnu Sara anchored the program, Mr. Viresh K. Chandur, coordinator, proposed vote of thanks.

****

As a part of National Pharmacy week 2017, Indian Pharmaceutical Association, Dakshina Kannada District, Local Branch, Mangalore in Association with Srinivas College of Pharmacy, Valachil, Mangalore & Srinivas Institute of Dental Sciences, Mukka, Surathkal organised Free Dental Camp on 8th December 2017 at Srinivas College of Pharmacy, Valachil, Mangalore.

Dr. Reshma Pai, Professor, Department of Pedodontics & Preventive Dentistry & Dr. Sreevidya Bhat, Reader, Department of Public Health Dentistry, Srinivas Institute of Dental Sciences, Mukka, Surathkal gave a talk on Oral hygiene.

On this occasion Dr. A.R.Shabaraya, President, Indian Pharmaceutical Association, Dakshina Kannada district Local branch and Principal, Srinivas College of Pharmacy in his presidential remarks advised the students to make the best use of this Dental camp.

Dr. EVS Subrahmanyam, Vice President, Indian Pharmaceutical Association, Dakshina Kannada district, Local branch and professor, Srinivas College of Pharmacy present during the programme. Ms. Architha Aithal & Ms. Agnes anchored the programme.

****

On the occasion of 56th National Pharmacy Week, **Delhi Pharmaceutical Sciences and Research University** organized a round table discussion on the topic- **Prescribing Generic Vs Branded Drugs: Impact and implication over Healthcare** where experienced professional from different backgrounds from the industry participated and contributed their views over Branded and Generics medicines and their possible impact on healthcare industry considering all stakeholders i.e. Doctors, Patients, Pharmacist and Pharmaceutical companies.

The discussion began with the opening remarks of Prof R.K Goyal, Hon'ble Vice Chancellor and Dr. S Dwivedi, Chairman, BOG, DPSRU, where they shared their experience over confusion on prescription of Branded medication and generic salt dispensed by the Pharmacists. They gave examples of confusing nomenclature and certain basic rules prescribed for calling a particular medicine "generic". They described how a blanket mandate to prescribe generic medicine can generate problems for physicians. One of the examples was prescription for a cough syrup.

Dr. Harvinder Popli, Principal and Dean, DPSRU laid emphasis over the real situation prevailing in India in terms of the laws and regulation passed by the Government for the Generics Drugs as well as quoted the real statistics comparing the branded and generic medication.

Dr. Vinod Sharma, Vice CEO, National Heart Institute shared a clinician's perspective on this subject matter. Being a clinician, he expressed his concerns about the issues of Quality, Safety and Efficacy of Generic medicines. In his views, compared to Branded drugs, generic drugs are less regulated in terms of quality control.

He cited a couple of examples where the Brand names of 2 generic drugs were exactly the same for the APIs content. However, they did not match and were meant for different therapeutic areas. He was also of the view that a pharmacist may not be able to judge from options between generic and branded drugs to fill the prescriptions, the Clinicians specific prescription for the particular medicine is must.

Dr. Dinesh Sharma, General Manager, Jubilant Generics Ltd. illustrated Industrial perspective on Generics, and how different pharmaceutical companies are evolving generic version of innovator (Branded medicine) considering the economic feasibility for end customers (patients). He emphasised on the fact that there is a gap between the quality of generics we export and what we get through import.

Industry has facilitated access of affordable medicine for India and world. As per Dr. Dinesh's perspective, the Pharma Industry follows regulatory compliance to ensure high quality end products which is similar and meets all specifications of the Branded drugs before it is licensed to enter the market. He also mentioned about the upcoming concept of Digital Medicine in which the drugs can be made available in the form of edible chip.

To express the dilemma of common people in India with respect to branded and generic medication, a street play was performed by the students of the university, beautifully defining how Indians are facing problem due to extra burden of medications (high price) for their family members and showcased the concept and benefits of Jan Aushidhi Yojna.

Dr. Naresh Sharma, Asst Drug Controller (India), CDSCO, gave a brief

about existing regulatory framework in the country with an overview about different centers of Generic medicines and illustrated about the clinical trial surveys are done by the Government of India to check effectiveness of Generic medicines. He emphasized the need of a revised regulatory mechanism to promote generics so as to make the medication more affordable and available for public.

Dr Sharma narrated that no generic drug is allowed unless it qualifies all the regulatory parameters of Drug Control Authority of India. There is already a compendium of about 7000 approved generic drugs that is available in public domain. Regulatory authorities undertake regular inspection for quality checks by randomly picking up samples of generic drugs from the chemists' shops. He mentioned that the drugs failing to meet the criteria is <0.5%.

Dr. Sanjay Sharma, Head (India), Nortons group, spoke about the necessity and affordability of generic drugs for lower income group patients as the primary objective for attaining "Health for all".

Mr. Bejon Misra, an international Consumer Policy Expert and a renowned social activist expressed his views about the importance of Jan Aushadhalya in today's practice, shared his experiences and motivated students to become an active part of the system with an idea to serve the society and describing the importance of ethics in each and every profession.

Mr. Misra shared his experience of Jan Aushadhi Kendra at Varanasi which won the best center for second successive year. He believes that this drive should have coverage on pan India basis with opening of more such Jan Aushadhi Kendras providing affordable generic medicine that is within reach to every citizen of India. He suggested that it is important to establish the trust about the quality of generic drugs which can be achieved by first using these drugs for ourselves.

The students of Masters in Public Health program: Komal, Deepshikha, Falak, Dhiraj and Rameshwar had conducted a survey in some hospitals to analyse the **Public opinion and awareness on the Generics vs. Branded Drugs**. They presented a conclusive report of their survey, followed by an Open House session with full of queries and answers which cleared the various issues like the feasibility of generic drugs, incentives involved,

availability and sustainability in market.

!Dr Shridhar Dwivedi, Chairperson of BOG, DPSRU summarized the discussion along with his own views as a practicing clinician. He expressed his concern about the medicine cost difference between India and other countries and accessibility of quality generics for ensuring Health for All. Following were the final take home messages:

- A fundamental component of access to medicines is affordability.
- Our government has taken several steps for Universal Health care by introducing many initiatives.
- Healthcare infrastructure have to get equipped with sincere physicians, pharmacists, administrators and other healthcare partners to intelligently handle the problems associated with the availability, quality and price of essential medicines.

****

Ph.D AWARDEES

Mr. Arun Maruti Kashid, currently working as Assistant Professor, Department of Pharmaceutical Chemistry, STES, Sinhgad Institute of Pharmacy, Narhe, Pune has awarded the Degree of Doctor of Philosophy (Ph.D) in Pharmacy by Shivaji University, Kolhapur, (Maharashtra) for his research work **"Design, Synthesis and Pharmacological Evaluation of Novel Antiviral Drugs".** The research work was carried out under the guidance of Dr. S. C. Dhawale, Professor, Head of Department of Pharmacology, SRTM University Nanded. Dr. Arun M. Kashid has 10 years of teaching experience. He has published 20 research papers in national and international journals and has presented more that 16 research posters in various national and international level conferences. He has attended more than 20 national and international level conferences. He

Glimpses of 69th IPC a Mega Hosted by APTI at Chithara University Near Chandigarh during 22nd to 24th December, 2017

69th INDIAN PHARMACEUTICAL CONGRESS 2017

69th INDIAN PHARM

69th INDIAN PHARMACEUTICAL CONGRESS 2017

is recipient of different projects from BCUD, Savitribai Phule Pune University and Generic Pharma Ltd. Pune of worth Rs. **6.45 Lakh.**

****

Dr Amol Chandekar, Associate Professor at School of Pharmacy & Research, People's University, Bhopal (M.P.) has been awarded the Degree of Doctor of Philosophy (Ph.D.) in Pharmacy by Sri Satya Sai University of Technology & Medical Sciences, Sehore (M.P.) for his research work entitled "Pharmacological investigation of Waltheria Indica on Modulation of Inflammation and Liver Activity". The research work was carried out under the guidance of Dr. D. N. Jhade, College of Pharmacy, Sri Satya Sai University of Technology & Medical Sciences, Sehore (M.P.). He has Published more than 10 papers in various national and international journals of repute.

****

Madhusudhana Reddy Induri, Assistant Professor, Department of Pharmaceutical Chemistry, K.V.S.R. Siddhartha College of Pharmaceutical Sciences, Vijayawada, Andhra Pradesh, has been awarded the degree of Doctor of Philosophy (Ph.D.) in Faculty of Pharmacy by Jawaharlal Nehru Technological University Kakinada (JNTUK), Kakinada in the month of July 2017 for his research work entitled, "**Development and Validation of liquid chromatographic methods for the estimation of selected antiretroviral drugs**", under the guidance of Dr. M. Bhagavan Raju, Professor and Principal, Sri Venkateswara College of Pharmacy, Hyderabad & Dr. Y. Rajendra Prasad, Professor, Department of Pharmaceutical Chemistry, University College of Pharmaceutical Sciences, Andhra University, Visakhapatnam. He has been awarded with "St. John's Pharmacy College Award" for best paper in the subject of Pharmaceutical Analysis by the Association of Pharmaceutical Techers of India, Bangalore, India. He has 9 years of teaching experience and has published 32 articles in various national and international journals. He is life member of APTI, IPA and IPGA.

****

Dr. Asit Ranjan Sahu currently working as Associate Professor in Pharmaceutics department was awarded PhD in Pharmaceutical Sciences

from Saurashtra University, Gujarat. His topic of research was "Studies to improve bioavailability of medicinal plants extracts and to verify the pharmacodynamic improvement" and he was guided by Dr. Sunil B. Bothara, Professor Govt. College of Pharmacy, Aurangabad. Dr. Asit Ranjan Sahu has more than 10 years of teaching experience and 11 publications in peer reviewed National and International Journals. He is an active editorial member of Asian Journal of Pharmaceutical Education and Research(AJPER) and Editor of International Journal of Research in Medicine (IJORIM).

****

KUDOS

Dr .Bhushankumar Sathe HOD, Smt. Sharadchandrika Suresh Patil College of Pharmacy was invited as a Resource person at Kokan Gyanpeeth Rahul Dharkar College of Pharmacy Karjat, Mumbai University as a expert talk on NBA National Board of Accreditation Process on 13.11.2017 .During the session full time involvement of 69 faculties with non-teaching personals were appreciated followed by attendance of Principal Dr. M.K.Kale for the session.

Dr.Sathe had a full day session on the revised criteria of NBA for the first time Accreditation process. All new nine criteria were explained and were made understood to the delegates.

Part B

1. Vision, Mission and Program Educational Objectives-50
2. Program Curriculum and Teaching –Learning Processes=150
3. Course Outcomes and Program Outcomes=100
4. Student Performance=180
5. Faculty Information and Contribution=175

6. Facilities = 120

7. Continuous Improvement = 75

8. Students Support System = 50

9. Governance, institutional Support and Financial Resources = 100

TOTAL = 1000 POINT

Dr.Sathe highlighted the Objective Based Education System followed by Input Output Based Education System are the measurable inputs to the program which will give the measurable output of the program. Faculties must be highly competent with higher education to comply with the STR as per norms the number of Associate Professors, Professors with Assistant Professor must be maintain and retained by the institution for Faculty Cadre Ratio.

Measurable Inputs

1. FINANCIAL Resources
2. Lab. Equipments
3. Infra - structure facilities
4. Faculties
5. No. of quality of students

Measurable Outputs

1. No. of students Graduated
2. Quantitative grades of students.
3. Success Rate of Students

Dr. Bhushankumar Sathe during his 9th session on NBA process at various institutes for Pharmacy, Engineering faculties told that faculty must be engaged in research area for seeking more grand's as minimum requirement is more than 4 lacs , publishing research papers in journal of repute and increase in participation of national /international conferences by presenting the research work. The session started at 9.30 a.m. and was concluded at 6.3o p.m. Principal Dr. M.K.Kale appreciated the session and discussion by Dr.Sathe and thanks him for precious guidance on the NBA process.

****

Dr. Sunil S. Jalalpure; Professor at Pharmacognosy Department of KLE University's College of Pharmacy, Belagavi received STARS (Sri Subbaraya Setty teachers and research students award) award 2017 on 12th August 2017 at Bengaluru – Karnataka from the hands of Padmashree Prof. V. PRAKASH, former Director of CFTRI/Distinguished Scientist of CSIR; Dr. G. Jagadeesh Coordinator, AAGCPA: American Association of Government College of Pharmacy Alumni, New York, USA; and J. Vijay Venkatraman, Director, Oviya Med Safe UK Ltd., London for Teachers for 'Excellence in Academic Research'in recognition of merit in academic research and

motivating young Pharmacy students instituted by AAGCPA, New York, USA.

Earlier to this honor, Dr. Jalalpure has received some other prestigious awards such as National Level Young Pharmacy Teacher Award For The Year 2012 by APTI (Association of Pharmaceutical Teachers of India; Best Teacher Award - 2011 from KLE University's, Belgaum on 5th September 2011 on Teacher's Day; Best Young Scientist award 2011-12 from KLE University, Belagavi, Karnataka.

Dr. Jalalpure has completed 3 research projects funded by UGC, ICMR & AICTE and has published has published 96 scientific papers in national and international journals. He has presented 68 papers at national/international conferences and has 3 intellectual property rights to his credit. He has successfully guided 40 M. Pharm. and 10 Ph.D. students and 1 Post Doctorate fellow towards successful completion of their research. Dr. Jalalpure authored a Text Book of Pharmaceutical Biotechnology published by Elsevier. He is recently involved in nanoparticle drug delivery system of herbal actives and green nanotechnology

KLE University's Hon. Chancellor, Vice Chancellor, Registrar and Principal / Staff members from College of Pharmacy congratulated Dr. Jalalpure for receiving S.T.A.R.S award 2017.

****

Release of Book Entitled **"A Practical Book of Human Anatomy & Physiology -II"** by Dr. P. Visen (St. Michael's Hospital University of Toronto, Canada), Dr. Upendra Nagaich (Secretary, SPER), Dr. Dinesh Mishra (Co-Convener), Dr. Bala Prabhakar (Dear, Pharma Science, SVKM'S NMIMS), Dr. Ashwini Deshpande (Associated Dear, SPTM, Shirpur), Dr. C. G. Bonde (Professor, SPTM, Shirpur), Dr.

Sateesh Belemkar (Professor & Chairperson D. Pharm., SPTM, Shirpur) in SPER Sponsored International Conference on New Horizons in the Field of Nanotechnology Organized by SVKM'S NMIMS, School of Pharmacy & Technology Management, Shirpur held on November 11, 2017. Authored by Prof. Md. Rageeb Md. Usman, Dr. Mrunal K. Shirsat, Dr. Jayesh Dwivedi & Dr. Mohammed Zuber Shaikh and Published from Nirali Prakashan, Pune.

Practical aspect of Human Anatomy and Physiology serves as an essential study feature of Diploma and Degree Pharmacy Course which enrich the knowledge of the student pharmacists and makes the Pharmacist easy to understand drug action and technology of drug dosage form.

The book of Human Anatomy and Physiology - II has been specifically designed as per PCI New Syllabus for F.Y. B. Pharmacy Students. Pharmacy Council of India are Prescribed by New Syllabus of All over India. The matter is precise, appropriate and with easy to understand language. The easy to draw diagram provide better approach towards the drawing as well as understanding of the features.

****

Prof. Harvinder Popli receiving Pharma Ratna Awards'

Dr. Sushma receiving Pharma Ratna Awards'

Two faculty members from **Delhi Pharmaceutical Sciences and Research University (DPSRU),** New Delhi were conferred awards in this conference **Prof Harvinder Popl**i, Dean, DPSRU was bestowed upon **Pharma Ratan Award for Life Time Achievement** and **Dr Sushama Talegaonkar,** Associate Professor, DPSRU was conferred with **Pharma Ratan Award for Excellence in Academia**. Ceremony for Pharma Ratan Award 2017 and International Pharmaceutical conference was organized by Rab Di Meher, an NGO on 26 November 2017 at Hotel Crowne Plaza, Rohini, New Delhi. This was a global event wherein more than hundred researchers and eminent personalities from Pharma Industry like Novartis, Cipla, and Academia from India and Abroad participated. The event was graced by the presence of Hon'ble Shri Udit Raj, Member of Parliament, Lok Sabha, as Chief Guest and Prof Y. K. Gupta, Head Dept. of Pharmacology and Pharmacovigilance AIIMS, New Delhi, was the Guest of honour.

****

Prof. Ramesh K. Goyal, Vice-Chancellor, **Delhi Pharmaceutical Sciences and Research University** (DPSRU), New Delhi signed MoU with Universiti Sains Malaysia, Penang, Malaysia for various academic and research program including extensive training with broad vision is provided to students through multi-dimensional programmes by the experienced faculty and industry-institute interaction coupled with latest tools and techniques to make them potential leaders, research scientist and entrepreneurs with assured placement in their chosen profession.

In a recent visit to Penang, Malaysia, Prof. Ramesh K. Goyal, invited as plenary speaker, on 13th MPS-USM Pharmacy Scientific Conference 2017, 3-5th of November, 2017 at the Bayview Beach Resort, Batu Feringhi, Penang Island. Prof. Goyal discussed possibility of joint projects for student and faculty exchange, designing of joint courses and collaborate research projects as well as research current progress and foster collaboration in the various fields of pharmacy.

****

Dr Jyoti Dahiya Assistant Professor, **Delhi Pharmaceutical Sciences and Research University,** Physiotherapy Department has been awarded

with **Young Achievers Award** by **President of Indian Association of Physiotherapy** (IAP) Prof. Umashankar Mohanty in International Conference of Physical Therapy INCPT-AIIMS 2017 has been organized by Neuro-Physiotherapy unit, Neuro Sciences Centre, AIIMS, New Delhi-110029 on from 7th-11th December at Jawaharlal Nehru Auditorium, AIIMS in recognition of her outstanding contribution to the development and promotion of Physiotherapy profession.

****

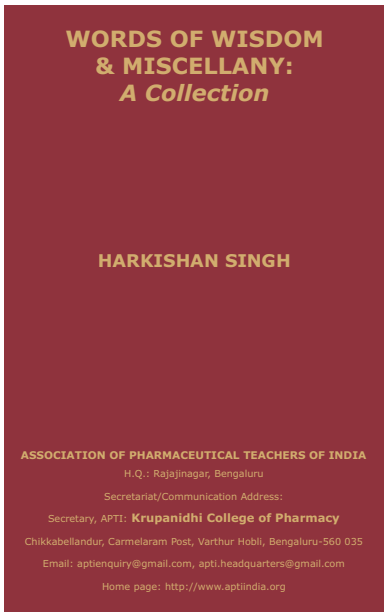
Dr Komal Singh, Teaching Assistant, Delhi Pharmaceutical Sciences and Research University, Physiotherapy Department won gold medal and was awarded with best research paper in senior paper category. The topic of research was "A Study To Evaluate The Effects Of Pilates Training On Balance And Agility In Male Football Players"

Also **Arshiya Faiz** BPT 3rd semester student, Physiotherapy Department has been awarded with gold medal in Drawing Competition. BPT students Represented DPSRU and actively participated in various competitions at International Conference of Physical Therapy INCPT-AIIMS 2017 which includes quiz competition, drawing competition, essay writing competition.

****

BOOK REVIEW

Book Title: **Words of Wisdom & Miscellany: A Collection**
Author: **Professor Harkishan Singh**
Publisher: **Association of Pharmaceutical Teachers of India, Bengaluru**
Year: **2017**
Pages: **771**



This lengthy book dedicated to another legendy scientist and researcher, Dr. Nityanand represents a massive collection of anecdotes, poetic notes, proverbial expressions, and miscellaneous items, etc over nearly half a century by the only Padma Shri awardee Pharmacist, Prof. Harkishan Singh; a renowned and esteemed teacher, scientist, researcher and a down to earth human being. I have been fortunate enough to have interacted several times.

We often think imagine about the hobbies, personality traits, philosophical and even spiritual preferences of our role models but such information is rarely available directly from the source. Everybody is carried/governed /influenced by the 'words of wisdom' in his own right. Words of Wisdom and Miscellany: A Collection is not a biography of a great man but provides a dep journey which the author might have traversed in shaping his personality and character.

Several quotations from wiser and influential people in all walks of life, not only science; clippings from papers, magazines and scientific journals;

inspiring stories, sher-o-shairy; history, politics and much more comprising the miscellany (covering English, Hindi and Urdu); are the brief assortment the author has selectively included in the book.

Collecting useful information and jotting it down untiringly over few decades is an arduous task which only a person of the caliber of Prof. Singh can perform.

Overall the book provides an interesting reading material different from author's other scientific and research publications and might inspire the younger generations in aiming, shaping and achieving their destiny.

Readers should eagerly look forward to future publications from the same author entitled "My Selective Readings".

Reviewed by
Dr. N.K. Jain
Emeritus Fellow (U.G.C.)
School of Pharmaceutical Sciences
Rajiv Gandhi Technical University
Airport Bypass Road, Gandhi Nagar
BHOPAL 462 036 [M.P.] INDIA

****

If some great personality is asked about the secret of his success', One may say 'wife' 'some women close to him', loving mentor', 'popular politician' or bureaucrat or a particular book or an incidence in life that was a life changer or so on. But all these may be an impulsive answer reflecting some emotions. To get the answer from an accomplished personality like the first Padma Shree of Pharmacy, a great scientist, a popular teacher, a personality with human heart, a loving family member, a person who loved equally more a profession and on the top of that one and the only true historian and history writer in pharmacy" in India like Prof. Harkishan Singh; it is not at all easy. Well after reading twice the latest book "Words of wisdom & Miscellany: A collection" by Prof. Harkishan Singh, I can probably answer the question of secrecy of his success. Let me tell honestly, I did not read twice, because I was just attracted to see the book but I lost my notes made after I read the book in flight. So I had to read it again because my friend Prof. Raman Dang insisted to send the review.

I vividly remember, my first notes. I found this book reflecting multifarious personality of Prof. Harkishan Singh; something other than a Pharmacy teacher with a passion for science and for research and interest in literature; poems and jokes from writing of Confucious of 551-479 BC and 18th century to Mirza Galib, Kushwant Singh of 20th century. He also used the writings of different languages like Urdu, Hindi, Punjabi and English like William Shakespeare, Herbert Shofield, Robert Frost. He included poets or writers of not only India and Pakistan like Qateel Shifai, but also of other countries. There are writings of Giani Zail Singh, Wans Shah of Punjabi in addition to those from Scotland Perssian. Famous personalities like Rabinra Nath Tagore were also there. Prof. Harkishan Singh included profusely the writings of Mirza Ghalib, but also of less popular writers like King Bahadur ShahZafar, Mr. Tag, Mr. Sundarshan Fakir, Iqbal, Amrita Pritam, Jigar Jalandhar, Bhagwan Singh, Qadin, Sohal Hashmi, Akbar Illahabadi , Kaifi Azmi Sufi., Bullney Shah Sahir Ludhians and the list goes on.

I also remember from my first time reading multi-subject coverage in the Words of wisdom'.This is not only collection of literature of linguistics but also commerce, management, environment, sports politics, sociology and practically from all disciplines of sciences like mathematics, physics, geography, geology, biology, chemistry, engineering and list goes on. Following subjects can be seen in the book: Some of the interesting writings, rarely available can be seen for Human Rights (p233), Traffic rules basis for car distance(p 281), English Grammar with confusing English words(p:329), Biotechnology(p 342 664), Nobel laureares like H. S. Khorana, Mother Terresa; Sports (p:394, 426,579), Geographical names (p401,459,488), Mathematics (p 408), Healthy food (p489), Environment(p 497), Botany (p 527,600,734), Language spoken(p 670), Religion (p719), Women power (p540, 552), Einsten (p541) and Heritage (p646).

However, after reading the book for second time, I got all together a different understanding and this was nothing but a secret of success and secret of Prof. Harkishan Singh being so accomplished.

If someone asks me why a teacher although knows much more than an industrialist, he/she cannot earn more money but an industrialist. The reason is a teacher possess all the wealth of knowledge ideas but could not implement in practice however an industrialist implements may be a very few ideas but earns money. One can not underestimate the importance of a teacher. On page 4 quotation from a Chinese poet Kuan-tzy speaks at this book volumes concept of significance of a teacher.

" *If you give a man a fish, he will have a single meal*

If you teach him how to fish, he will eat all his life

First 80 pages of this book clearly reflect that Prof. Harkishan Singhthoroughly practiced principles of pedagogy in his life through reading and collecting quotes or words of vision. Some of my picks of quotes from this book are as follows:

- Blessed are they who hunger and thirst after knowledge' by EE Reid (Chemist John Hopkins University, USA)

- Essence of life is the learning of facts, but the asking of questions, not memorizing, but wondering not being told but trying to find out. By Elizabeth A Wood.
- Knowledge required must be transmitted or it dies knowledge required and transmitted must be used or it becomes sterile and inert. The three missions of the university: Acquisition, transmission and use of knowledge are as organically related as are three aspects of knowledge. Walter S Gulthmann.
- Science is built up with facts, as have is stones but a collection of facts is no more a science than a heap of stones in a house. By Jules Henn Peincare.
- Design of selective drugs are not seethe the limitations of arsenic chemistry but by ignorance of cell biology.
- It is characteristic of science and progress that they continually open new fields to our vision' by Louis Pasteur.

I personally feel and rather restrict myself bring conclusion to the review, by saying that ten more books can be written if "**Words of wisdom**" collected are analyzed. It is like **"Veda" or "Upanishad**" which are to be read again and again. My conclusion is that Prof. Harkishan Singh has been "**The Chief**" of Pharmacy profession in world in 20th century because he possesses all characteristics of "chief" as mentioned in this book on page 39.

"THE CHIEF'S BASIC RULES"

Rule 1: The Chief is right.

Rule 2: In the impossible hypothesis that a subordinate may be right, rile becomes immediately operative.

Rule 3: the Chief does not sleep; he rests.

Rule 4: The Chief is never late; he is delayed elsewhere.

Rule 5: The Chief never leaves his work; his presence is required elsewhere.

Rule 6: The Chief never reads the paper in his office; he studies.

Rule 7: The Chief never takes liberties with his secretary; he educates her.

Rule 8: whoever may enter the Chief's office with an idea of his own must leave the office with his Chief's ideas.

Rule 9: The Chief is always Chief even in bathing togs.

Reviewed by
Dr. Ramesh K. Goyal
Vice Chancellor
Delhi pharmaceutical Sciences & Research University,
Delhi

****

A surprise over surprise. The reason for the new surprise has been that just a few months back, I wrote a review on a treatise from his pen titled 'Views and Reviews 3' (published by APTI Bengaluru), and last week again I get a gift copy of a much larger volume (771 pages) titled 'Words of Wisdom & Miscellany: A Collection', which is also published by APTI. It is from the pen of a living legend, who is the only pharmacist Padma awardee till date, a person who is completing 90 years of his life next year, and the one who has history collection that would keep him writing for next 10 years, is on his writing desk with office like precision from morning till evening daily, 365 days.

For me, it seems he is silently watching his body get frail, and perhaps understands that he has to finish up the pending 10-year agenda in as many breaths as would be gifted to him by the God almighty. Somewhere in his mind he is real passionate about the essence in the following:

Mein to nahin rahunga

Mere geet rahenge

(My songs shall live even though I shall perish) - Surjit Patar (p. 106)

Zindagi mein apna kirdar aise nibhao ki parda girne ke baad bhi taaliyaan bajti rahen. (p. 566)

.....Remember the words of Abraham Lincoln: *'It is not the*

years in your life that count, it is the life in your years, (p. 602)

To the extent, Professor Harkishan Singh is committed to his zeal, so I am, in continuing taking pleasure in reading every page of his new writings, and share with readers my enjoyment in few pieces. The content of this volume is very different, it is not about history of pharmacy, the luminaries of pharmacy profession, or his personal views and reviews, but it is a collection of anecdotes, poetic notes (hindi, punjabi and urdu), proverbial expressions, historical accounts in brief and miscellaneous items; which he has been immaculately jotting down from various sources in his notebooks in the last 50 years, and also from the paper cuttings he has preserved for an equal long period. Difficult to apprehend how a scientist, who has been entrenched into experimental research and publications for most part of the life, and being inventor of Chandonium iodide, the first drug from a University set-up, could take out time to pursue such a leisure pursuit. How blessed and fortunate we are, to be connected to this genius.

In none other than this book, one will find together the wisdoms of Bernard Shaw, Shakespeare, Einstein, Roosevelt, Lincoln, Reid, Ghalib, Iqbal, Waris Shah, Kabir, Tagore, Gandhi, Khuswant Singh and innumerable other International and National legends. The following is just a very small glimpse:

The real dates of history are those of scientific discoveries, not the accession of kings or the outbreak of revolutions. – E. E. Reid (p. 2)

If a professor thinks what matters most

Is to have gained an academic post

Where he can earn a livelihood, and then

Neglect research, let controversy rest,

He's but a petty tradesman at the best,

Selling retail the work of other men. – Kalidasa (p.11)

Wisdom is a weapon to ward off destruction;

It is an inner fortress which enemies cannot destroy. - Thirukkural 421 (200 BC) (p. 328)

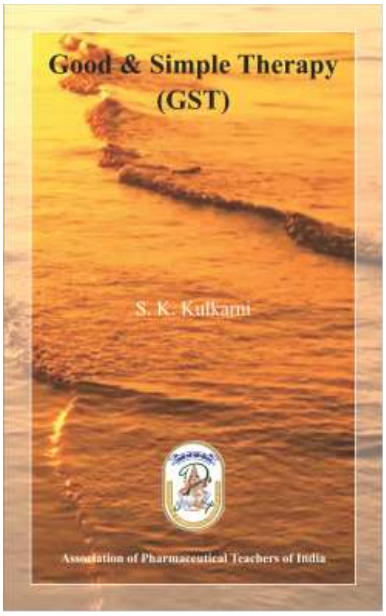
.....I am reminded of twelfth century Jewish philosopher Maimonides who said, '*Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime*' (p. 612).

When I showed this new tome by my Guru to my wife, she gave a royal order that it is from this moment hers, and I have to loan it when needed. Rightly quoted in the present volume is Bacon's advice on judicious reading: Some books are to be tasted, others to be swallowed and some few to be chewed and digested (p. 734). I am sure, not only me and my wife, but everyone of you will also vie to taste this wonderful digest. Hope that APTI is able to meet the demand for this immensely readable hardcover.

Reviewed by
Dr Saranjit Singh
NIPER, SAS Nagar

****

Book Title: **Goods & Simple Therapy**
Author: **S. K. Kulkarni**
Publisher: **Association of Pharmaceutical Teachers of India, Bengaluru**
Year: **2017**
Pages: **200**



It is another book by Dr. Kulkarni, who had earlier published "**Rhythms of Life**", "**Fair play**" and "**Learning from Experience**". His observations of the events that goes around in everyone's life but he in his typical brahmanical style gives a humorous touch and tells it in very simple language that only a seasoned professor like him can make it interesting and provoke the reader's broad smile. "**Good and Simple Therapy**" is written on household conversations and observations which he has picked up making it very interesting reading. He has done a great job in describing, aptly, his early teachers of Bangalore (Govt) College of Pharmacy. I had known most of them until some of them died but I had never observed the angularities and the excellence in each case pointed by the writer. He has released, through this book, a guarded secret of two highly placed pharmacologists, Dr. E. Costa and Dr. P.N. Kaul of International fame, their visit to a 'mujra party' when they were visiting me at Jaipur. Until now, it was a secret, well kept for more than forty five

years. The Chapter on "Panchagavya" is not only informative; it tells so much about the belief of the traditional people which may be partly true. His comments on 'Ramanyan' and 'Mahabharat' and 'Sage Balmiki' are important and I recommend people to go in these more seriously, reading the original text written by C. Rajgopalachari. I had read them sixty years back. For Pharmacists and Phamacologists his remarks on 'Marijuana' (Blissfully ours) are informative, instructive and educational. He has narrated the whole saga associated with it. It is equaaly interesting to read about 'Botox'-the wrinkle-therapy.

Dr. Kulkarni has not forgotten to make a mention of my idiosyncrasies. He has described them in details, why not with the aging process you change. He has an eye on the changes and I do not mind.

Bravo! Dr. Kulkarni, keep it up!

P.C. Dandiya, Ph.D. (Toronto), FAMS FCINP **FIPA FIPS**.
Distinguished Emeritus Professor and Advisor, Dr. Robert Heilig Library
S.M.S. Medical College, Jaipur 302004
Distinguished Alumnus Banaras Hindu University

****

Dear Subscriber,

We are happy to bring to your notice that the payment for subscription of IJPER & IJOPP Journals is made online. You are requested to visited www.aptiindia.org for online payment. Please note that only online payment for subscription will be accepted from Jan 2018 onwards.

For any queries please mail us to:

aptienquiry.com / ijperenquiry@gmail.com

or reach us by phone at 9844399409.

Secretary

APTI

APTI OFFICE BEARERS (CENTRAL)

President: **Pravin Digambar Chaudhari,**
Vice-Presidents: **Swarnlata Saraf, Milind Janrao Umekar, Debajyoti Das, Dhirender Kaushik, Satish A Kavatagimath**
Secretary: **Raman Dang,** Treasurer: **V. Murgan**
Associate Secretary: **Sohan Chitlange,** Executive Secretary-Central: Rajasekaran. S

APTI EDITORIAL COMMITTEE

Advisory Committee: Burande MD, Chaudhari PD, Debajyoti Das, Dhirender Kaushik, Milind Janrao Umekar, Satish A Kavatagimath, Shivananda BG, Swarnlata Saraf

Editor: Raman Dang

Publication Committee - Bhajipale N.S, Kuntal Das, Mahendra Setty, Mahesh NM, Mahvash Iram, Mueen KK, Mrudula Giri, Noor Zahra, Prabhitha, Preethi Sudheer, Ruchi Agrawal, Rajendra SV, Sanjay Pai, Shobha Rani RH, Sonal Dubey, Dinesh Biyani

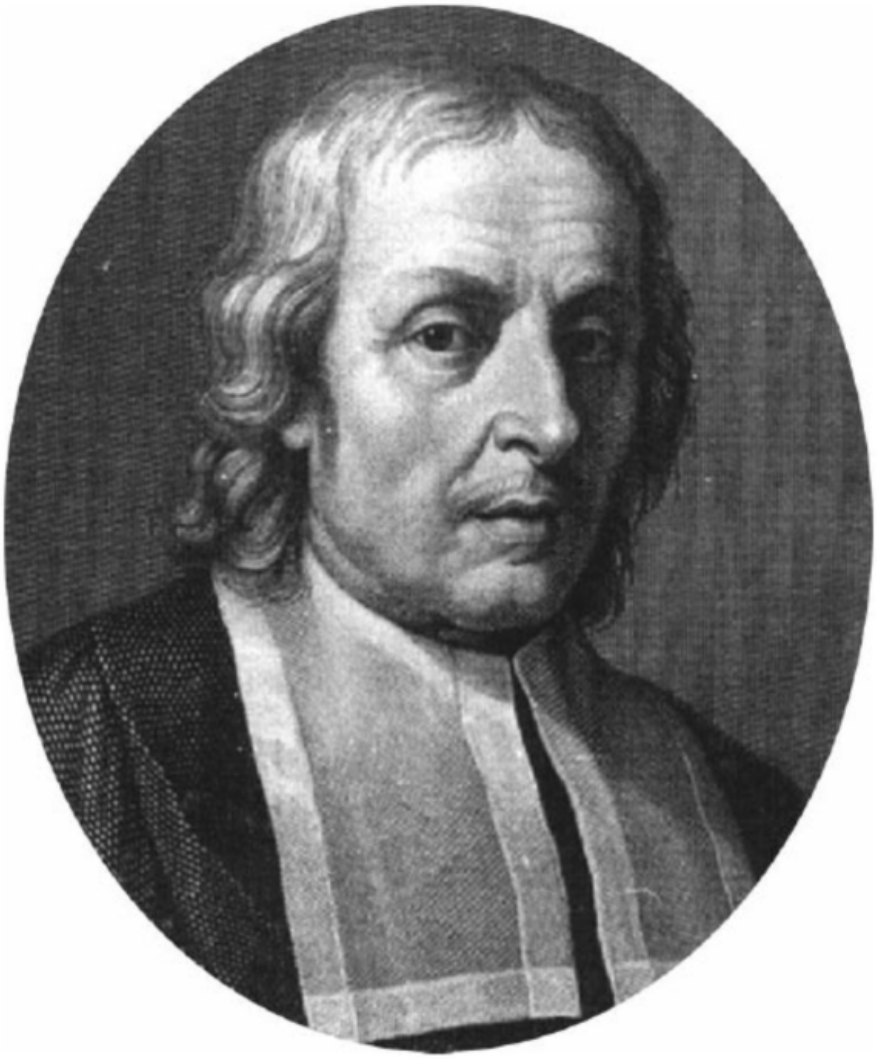
Printed & Published by: Shivananda BG and Raman Dang on behalf of Association of Pharmaceutical Teachers of India.

Association of Pharmaceutical Teachers of India (India)

APTI Headquarters: Rajajinagar, Bangalore, Karnataka
M: +91 9945846106 / 9844399409
Email: aptienquiry@gmail.com, aptibulletinalerts@gmail.com, apti.headquarters@gmail.com
Home page: http://www.aptiindia.org

Secretariat and for Correspondence:
Krupanidhi College of Pharmacy
12/1, Chikka Bellandur, Carmelaram Post Varthur Hobli, Bangalore - 560 035

COLLECTOR'S ALBUM



Marcello Malpighi

(10 March 1628 – 29 November 1694)

was an Italian biologist and physician, who is referred to as the "Father of microscopical anatomy, histology, physiology and embryology

Contributed by
Prof. Kuntal Das
Krupanidhi College of Pharmacy,
Bangalore.

Fish Skin for Pioneering New Treatment against Burn

Kuntal Das[1]*, Raman Dang[2]

[1]*Professor, Department of Pharmacognosy and Phytochemistry,

Krupanidhi College of Pharmacy, #12/1, Chikkabellandur, Carmelaram Post, Varthur, Hobli, Bangalore-35, India.

[2]Registrar, DPSRU, New Delhi.

Correspondence: drkkdsd@gmail.com, Mob: +919632542846

Abstract

The basic concept for treatment of burn with animal skins is an innovative medication policy where these skins are kept on the burnt area for several days for recovery. Among that fish skin treatment is a recent innovation by Brazilian researchers. The fish skin is placed on the burnt area which moist and allow the transfer of collagen to promotes healing. This treatment is an alternate and easy method than gauze bandage, which needs regular changing and is also often painful when they tested clinically on human.

Key words: Burn, clinical trial, collagen, fish skin, medication

Introduction

Burns are one of the most common injuries that are characterized by severe skin damage. It causes the damage of the affected skin cells. Based on the cause and degree of injury, people can recover from burns without serious health consequences but sometimes more serious burns require immediate emergency medical care to prevent complications and death. Burns are classified as first, second and third degree, based on the severity of damage to the skin1. First degree burns are minor types which causes only redness with non blistered skin, whereas second and third-degree burns indicate blistering on skin and widespread thickness with a white, leathery appearance respectively. A burn is caused by heat, cold, electricity, chemical, friction or by radiation2.

In the world, adult males have twice the mortality as females from burns. In 2015 fire and heat resulted in 67 million injuries3. According to the World Health Organization, widely about 300,000 deaths occur in each year are due to burns4. The numbers of fatal burns are changed from 280,000 in 1990 to 176,000 in 20155. This indicates the proper treatment.

Proper and quick treatment can save the person from first- and second-degree burns to minimize further damage and infection. These burns rarely scar but can result in a change in pigment of the skin in the burned area. Early cooling (within 30 minutes of the burn) reduces burn depth and pain1; perform with cool water 10–25 °C. Chemical burns may require extensive irrigation6. Wounds due to burn are treated with cleaning with soap and water, removal of dead tissue and application of dressings7. But extensive damage from severe second and third-degree burns can lead to problems in deep skin tissues, bones, and organs. During that time emergency surgery or physical therapy or rehabilitation or lifelong assisted care are required to recovery the wound.

Generally animal skins were used to cover burned placed to protect the wound and early recovery. Recently researchers from Brazil have used the skin of an aquatic animal as a band aid to treat lesions and they proved clinically by treated with fish skin (Figure-1, 2, 3 and 4). Especially Tilapia fish skin was used to treat burned places over 20 days which provided coolness, without any pain (Figure-5). This fish is most common fresh water and disease resistant fish.

The fish skin was removed using petroleum jelly to lift, slide and ease the dressing away from the healed area. The fish strips form a mould over the wound and recovered very fast.

Mechanism:

The aquatic dressing's tensile strength is similar to human skin and remains flexible and easy to mould around a wound.

Analysis of the Tilapia skin revealed that the skin contains optimum levels of

Fig. 1: Burned area

Fig. 2: Applied fish skin on hand area

Fig. 3: Burned in leg area

Fig. 4: Applied fish skin on wound area

Fig. 5: Tilapia fish

collagen and high degrees of humidity, so it takes a long time to dry out. Thereafter the skin has important characteristics that it is speeding up the healing of burns and providing patients with essential proteins. Collagen helps in early healing.

Advantages of fish skin:

Dressings and bandages are changed daily to keep the wounds clean which is painful and the patient has to take an anaesthetic shower using anti-bacterial soap but the benefits of this alternative technique include reducing the trauma and pain suffered by patients without changing daily like bandages.

CONCLUSIONS

The treatment is one of the traditional methods for wound healing. Tilapia fish skin performs significantly better in the healing process by soothing and curing severe wounds caused by burns. The researchers hope the fish skin treatment for burned wound will prove commercially viable and encourage businesses to process tilapia skin for medical use in future.

REFERENCES

1. Tintinalli, Judith E. (2010). Emergency Medicine: A Comprehensive Study Guide (Emergency Medicine (Tintinalli)). New York: McGraw-Hill Companies. pp. 1374–1386.
2. Herndon D, ed. (2012). "Chapter 4: Prevention of Burn Injuries". Total Burn care (4th ed.). Edinburgh: Saunders. p. 46.
3. GBD (2015). Disease and Injury Incidence and Prevalence, Collaborators. (8 October 2016). Global, regional and national incidence, prevalence and years lived with disability for 310 diseases and injuries, 1990-2015: a systematic analysis for the Global burden of disease study 2015. Lancet. 388 (10053): 1545–1602.
4. Branski LK, Al-Mousawi A, Rivero H, Jeschke MG, Sanford AP, Herndon DN. (2009). Emerging infections in burns. Surg Infect (Larchmt). 10(5):389–397.
5. GBD (2015). Mortality and Causes of Death, Collaborators. (8 October 2016). Global, regional and national life expectancy, all cause mortality and cause specific mortality for 249 causes of death: 1980-2015: a systematic analysis for the global burden of disease study 2015. Lancet. 388 (10053): 1459–1544.
6. Granger, Joyce (Jan 2009). An Evidence based approach to pediatric burns. Pediatric Emergency Medicine Practice. **6** (1).
7. Marx, John (2010). "Chapter 60: Thermal Burns". Rosen's emergency medicine: concepts and clinical practice (7th ed.). Philadelphia: Mosby/Elsevier.

ASSOCIATION OF PHARMACEUTICAL TEACHERS OF INDIA (APTI)

January

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

February

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

March

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September

S	M	T	W	T	F	S
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

October

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

December

S	M	T	W	T	F	S
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Jan 14 : **Makara Sankranti**

Jan 26 : **Republic Day**

Feb 14 : **Maha Shivaratri**

Mar 2 : **Holi**

Mar 25 : **Ram Navami**

Mar 29 : **Mahavir Jayanti**

Mar 30 : **Good Friday**

Jun 16 : **Idul Fitr**

Aug 15 : **Independence Day**

Aug 22 : **Idul Zuha (Bakrid)**

Sep 03 : **Janmastami**

Sep 21 : **Muharram**

Oct 02 : **Mahatma Gandhi Jayanthi**

Oct 19 : **Dussehra**

Nov 7 : **Deepavali**

Nov 21 : **Milad un Nabi**

Nov 23 : **Guru Nanak's Jayanthi**

Dec 25 : **Christmas**