



# APTI BULLETIN

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**HEAD QUARTERS - Bangalore**

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Dear APTI Members,

APTI Headquarters has been changed to  
620/D, 35th Cross, 2nd Block, Between  
ESI Hospital and RTO Office,  
Rajajinagar, Bangalore- 560 010. Please  
send your queries to our new address.

## OFFICIAL DESK



All of you are aware, for few years the world economics were floundering and in recession. It became a cause for concern that India was also not spared in the market crunch taking place. But the silver lining is our Pharmaceutical Industry, Which has over the years developed resistance to such market crashes. This positive segment will give direct or indirect benefit to Pharmacy profession also. Though our industry has not been impacted that severely, it still had to bear some impact of the global economic slowdown.

Our Government also announced major initiatives and sops to protect and boost the sagging industry growth in the recent years.

India, with a population of more than one billion is now the second largest pharmaceutical market in terms of volumes consumed. The India Pharma Industry plays a crucial role in the growth of global pharmaceutical industry as doth domestic and multinational corporations are greatly benefited. With the backing and support of the Government with pro-industry policies, we will surely achieve the ambitious targets very soon. All this is possible when both Government and Pharmacist join hands together and work for common cause.

Generic drugs produced in India are increasingly being accepted worldwide. Generics from India are now considered synonymous with Quality, Safety and Affordability and accepted by all countries. With the world depending on India as the preferred source of quality affordable generics, our success reflects this fact: To get intentional recognition, it is the Pharmacists who play a vital role. Let us thing about our country's future and the need to build a progressive and equitable policy and society.

Jai Hind.

Shri R.C Juneja  
Chairman  
65<sup>th</sup> IPC

**INSTITUTIONAL NEWS**



25<sup>th</sup> September, 2013



Gokhale Education Society's Sir Dr. M.S.Gosavi College of Pharmaceutical Education and Research, Nashik had organized a One day Seminar on "Developing Communication and Soft Skills for Better Career Opportunities". Around 130 delegates including principals, faculty and students from various Pharmacy Colleges of Nashik and within GES attended and participated in the seminar.

The program started with the welcome address by Principal Dr. S.V.Amrutkar who emphasized the prime objectives of the seminar and the importance of communication in day to day life. The seminar was inaugurated at the hands of Honorable Sir Dr. M.S.Gosavi, Shri K.K.Patil, Dr. V.S.Gosavi, Dr. M.P.Wagh, Prof. P.M.Deshpande(Project Director GES), Shri S.M.Gosavi (Establishment Director GES)

Sir Dr. M.S.Gosavi (Secretary GES) enlightened the importance of communication for younger generations in building up the nation.

Shri K.K.Patil (General Manager Glenmark Pharmaceuticals, Satpur Nashik) underlined that good communication and soft skills were the essential qualities looked for in interviews.

Dr. V.S.Gosavi (International Management Consultant) who elaborated the global opportunities that can be achieved by improving communication skills.

The vote of thanks for the inaugural function was proposed by Prof.N.A.Patil.

Various sessions were delivered by eminent personalities from academics as well as research. The key speakers for this seminar were Dr. M.P.Wagh (Head of Pharmaceutics at MVP's College of Pharmacy Nashik) who explained the need of communication and the barriers of communication, Dr.S.M.Joshi (Head of Marketing at GES B.Y.K College of Commerce) focused on Interpersonal Relationship, Prof. S.R. Kulkarni (Coordinator and Resource person in Quality Development Cell at GES College of Engineering Nashik) delivered a lecture on communication and soft skills. An overview on presentation skills was discussed by

Prof.U.S.Surve (Professor at GES H.A.L. College of Science and commerce, Ozar). The seminar was successfully coordinated by all the staff members and was duly assisted by B.Pharm students.

The valedictory session was inaugurated by Principal Dr. S.V.Amrutkar, Prof S.S.Boraste (Convener) and Prof. R.Y.Ghegade (Co-Convener). Seminar was summarized by Prof. A.T.Nair and the vote of thanks was proposed by Prof. H.S.Benare.

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25<sup>th</sup> September, 2013



Konkan Gyanpeeth's Rahul Dharkar College of Pharmacy and Research Institute, Karjat (MU) celebrated 'Pharmacist's Day', on 25<sup>th</sup> September 2013 by organizing various events to create awareness amongst the public.

Students of Konkan Gyanpeeth Rahul Dharkar College of Pharmacy and Research Institute, Karjat organized Mass Awareness Project on 'Dengue fever' as it is a cause of concern in Mumbai and in these suburbs under the guidance of Principal Dr. M .K. Kale. Students provided the information regarding cause, symptoms, preventive measures, and home remedies of Dengue Fever to public at Karjat Railway Station. Leaflets were also distributed. The Programme started with lighting of the lamp by Mr. Z. A. Dabhiya, Treasurer Konkan Gyanpeeth, Mr. P.V. Shringarpure, Secretary Konkan Gyanpeeth and Mr. V .B. Mande LMC Member. Principal, all faculty members, supporting staff and students actively participated.

Dr. M.K.Kale, Principal K.G.R.D.C.P & R.I, Karjat elaborated the role of Pharmacist, Mr. Ashwin Kotamkar, Assistant Professor presented the detailed information about the college, Mr. Pritam Juvatkar, Mr Jain told the information regarding the competition and awareness program. Counselling was done by students and local physicians, Mr. Pravin Naik executed the work related with the overall organization and Mr. Nilesh Gorde , Mr. Sandip Waghulde and Ms. Jyoti Lahane, Mrs. Pawar, Deshpande handled the work related to the quiz competition.

On the same day intercollegiate Scientific Model / Poster Competition and Quiz Competition was organized in the college. About 50 colleges

participated. The KGRDCP karjat team excelled. The other winners of the competition were as follows:

Scientific Model/Poster Competition:

1. Atul Patil and Abhijit Patil (J.S.M College, Alibag)
2. Kunal Chaudhary, Arshad Palan and Sachin Patel (K.M.Agrawal College, Kalyan)
3. Murlidhar Waghmare (Abhinav Gyan Mandir, Karjat)

Quiz Competition:

1. Mamta Chavan, Susmit Naik and Sidhu Borana (M.E.T College, Bandra)
2. Niraj Vishwakarma, Prashant Dighe and Shraddha Dhumal (Navyug Vidyapeeth College of Pharmacy, Mahad)
3. Sunita Gupta, Pooja Gupta and Jinal Jain (B.E.S Institute of Pharmacy, Nagothane)

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**28<sup>th</sup> September, 2013**



One Day Seminar on 'Role of Pharmacists in Clinical Evaluation Of IND' under lead college scheme of Shivaji University, Kolhapur was conducted as a part of 52<sup>nd</sup> National Pharmacy week celebration on 28<sup>th</sup> September 2013 at Satara College of Pharmacy, Degaon, Satara, M.S. Dr H. N. More, Chairman of lead college, BOS of Pharmacy, Shivaji University, Kolhapur and Principal, B. V. College of Pharmacy, Kolhapur was chief guest of the function. While explaining the theme of the seminar Prof (Dr). Gawade S. P., Chief Coordinator, Convener and Principal, Satara College of Pharmacy, Satara stressed upon the awareness to the pharmacist to opt for job oriented professional specialized skills, besides regular curriculum as a need of hour in today's degree and student centric pattern of education. In the morning session, Dr. Kedar Joshi, Director, Clinical Operations, Hanul Medizin, Pune and Dr. Bharti Daswani, Professor in Pharmacology, B. J. Govt. Medical College, Pune, guided students and gave very informative speeches on the "role of pharmacists in clinical trial" and "Pharmacovigilance". In the afternoon session, Dr. Gawade highlighted role of pharmacist in "Therapeutic drug monitoring" and Dr. Prasad Thakur

Desai, General Manager, Scientific affairs, Indus Biotech, Pvt. Ltd, Pune guided students with explanatory speech on "design and protocol development of clinical trial" Shri S.N. Belhekar, Asst. Prof. and co-ordinator gave vote of thanks and program was concluded with group photograph.

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**3<sup>rd</sup> - 4<sup>th</sup> September, 2013.**



A two day AICTE sponsored national level seminar on "Universal Perception of Pharmaceutical Research and Development, Innovate-13" was held at Pulla Reddy Institute of Pharmacy, Annaram(V), Jinnaram(M), Medak(Dt) from 3<sup>rd</sup> to 4<sup>th</sup> September, 2013.

The seminar was organized with the objectives to encourage the pharmacy students, teachers, industrial delegates to participate and present on current updates in Pharmaceutical research and development.

The seminar was successfully organized under the dynamic leadership of principal of PRIP, Dr.V.Rama Mohan Gupta and supported by his team of faculty. The chief guests for inaugural ceremony were Dr. M. BhagawanRaju, Principal, Gland Institute of Pharmaceutical Sciences, Dr. A. Ramesh, Principal, Vishnu Institute of Pharmaceutical Education and Research, Mr. S .Ramesh Director, Vital Therapeutics Private Ltd, Hyderabad, Sri Ch. Sathi Reddy, Chairman, Pulla Reddy Group of Institutions.

Earlier the programme was set in tune by principal Dr. V. Rama Mohan Gupta. In his welcome address, he not only welcomed all the speakers, dignitaries and delegates gathered there, but also shared the overview of the seminar. He also initiated the session by focusing on importance of QbD in analysis of dosage forms.

A morning session started with a plenary lecture by Dr. Raghupati, Senior Director, Aizant Drug Research Solutions Pvt Ltd, Hyderabad on "Nano Drug Delivery Systems" followed by talk on " Life Cycle Management" by Mr. I.Srinivas, Executive Director, Neuheit Pharma Technologies Pvt Ltd, Hyderabad. In the afternoon session plenary lecture was delivered by Dr. Vasdev Moorthy, Principal, Jayamukhi College of Pharmacy, Warangal on "Non-Invasive EEG Techniques in Pharmacology".

On the second day i.e on 4<sup>th</sup> September, 2013, a plenary Lecture was

delivered by Dr . P.L. K.M. Rao on” Quality by design: Concepts for ANDA’s (process)” and Mr. Prasana Sagar, Senior scientist, Gland Pharmaceuticals PvtLtd, gave a talk on “QbD-Pharmaceutical Quality by Design: Product & Process Development, A generic Industry perspective”.

There were 160 abstracts for poster presentation & 85 abstracts for Oral presentations, but only 150 of poster & 78 of oral presentations accepted after screening. About 583 members from industry and academia participated.

The Valedictory function of the Seminar was graced by Dr. Ajitha, HOD, Centre for Pharmaceutical Sciences, JNTUH. The Programme was well received and appreciated by all.

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**25<sup>th</sup> October, 2013**



Indian Pharmaceutical Association (Pune branch) and JSPM's Rajarshi Shahu College of Pharmacy and Research, Tathawade, Pune jointly organized one day workshop for Pharmacognosy teachers on Friday, 25<sup>th</sup> Oct 2013 at seminar hall of Rajarshi Shahu College of Pharmacy & Research, Tathawade.

**Objectives of the seminar were**

1. To create thorough and uniform understanding in teaching the subject Pharmacognosy.
2. To synergize teaching skills in Pharmacognosy teachers.
3. To encourage accountability and innovations in Pharmacognosy teachers.
4. To discuss about the problems associated with certain topics of theory and practicals.
5. To understand the views of participants & experts, in order to enhance the interest of the students for the subject.

**Panel of Experts were :**

1. Dr. K.R. Khandelwal (Rajarshi Shahu College of Pharmacy & Research, Pune)
2. Dr. M.J.Patil. (Marathwada Mitra Mandal's College of Pharmacy, Pune)

3. Dr. Smt. Rukhsana Abdul Rub (Allana College of Pharmacy, Pune)
4. Dr. Amol Kharat (Modern College of Pharmacy, Pune)
5. Dr. Akshy Baheti (Maharashtra Institute of Pharmacy, Pune)

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**8<sup>th</sup> November, 2013**

Workshop for Krupanidhi College of Pharmacy Teachers on 8<sup>th</sup> November 2013

Mentor, Coach & Guide Prof Anila was the Guest and delivered a workshop on “Understanding Effectiveness' for Campus Teachers.

Concepts of different areas of Human Resources; Virtual Presence; and Self Esteem and making Teachers experience and realize how a word of appreciation and identifying positive qualities can be a good source of motivation. It was a wonderful experience of interacting with other departments and in the process of learning we shared some light moments together.. There was Demonstrations, Case-Studies, Role Plays and Group Games and Discussions.

Prof. Mallya organised the workshop and instrumental in bringing Prof Anila to address us and for bringing the faculties of different depts. together.

The Teachers participated so enthusiastically.

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**25<sup>th</sup> September, 2013**



On the occasion of Pharmacist Day celebration on 25<sup>th</sup> September 2013 various programme were organised at Srikrupa Institute of Pharmaceutical Sciences, Velikatta, Siddipet, Dist: Medak .

The first event was the Public Awareness Camp about the importance of Pharmacy, arranged at the centre place of Siddipet town. On this occasion the Vice Chairman of the College management Sri M Srinivas, Secretary Sri K.Shashidhar Reddy, Treasurer Sri Ramachandram, Principal Dr D.Karthikeyan, Vice Principal Dr Manjunath S Y , Prof Shivaraj Gouda and Mr G Ganesh Asst prof., other staff members and B.Pharma and M.Pharma students were Present. Prof Manjunath SY welcomed the gathering. Prof D Karthikeyan talked about the Pharmacists day celebration and its need. The students distributed the pamphlets to the public about the



role of Pharmacist in the Health care division, and also about the tips on how to use the drugs, dose and dosage form. On this occasion the local hospital pharmacists were greeted by the Principal and senior staff members.

The next program was the Blood donation camp arranged in coordination with the Lions Club Siddipet in the college campus. All the teaching, non teaching staff and 35 students donated the blood.

Finally the plantation program was arranged, staff and students actively involved and planted the plants in and around the college premises.

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KLE University's College of Pharmacy- Belgaum, in association with Indian Pharmaceutical Association, Belgaum Branch and IPA Student Forum organized a public awareness rally in view of 52<sup>nd</sup> National Pharmacy Week celebration. The rally was inaugurated by Prof. (Dr.) Chandrakanth C. Kokate, Hon. Vice Chancellor, KLE University, Belgaum. Rally started from Chennamma Circle to KLEU's College of Pharmacy campus. More than 300 students and staff from various pharmacy colleges of Belgaum participated in the rally. Shri. Gurunath Magangere, Drugs Inspector represented the Drugs Controller Department.

Rally was concluded with a programme organized at KLE University's College of Pharmacy, Belgaum. Dr. Kirankumar Hullatti, welcomed the gathering and Prof. (Dr.) Chandrakanth C. Kokate addressed the students and staff and highlighted importance of Pharmacy profession in public health and also on the various aspects of pharmacy profession. Prof. (Dr.) V. P Rasal, Vice Principal, KLEU's College of Pharmacy and Prof. (Dr.) M. S Ganachari, Deputy Registrar, KLE University were presided over the function.

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Every year as a part of Professional activity Periyar College of Pharmaceutical Sciences (PCPS) Organizes National Pharmacy Week Celebrations.

On 18.11.13. National Pharmacy Week 2013 Celebrations began with pamphlet distribution regarding the theme "Pharmacist - a health care professional" that covered five thousand five hundred public and one thousand students.

On 19.11.13. a Pharma Rally has been conducted with the theme as "Pharmacist - a health care professional". Around 400 students of PCPS took out a Rally in the city to create awareness among public regarding health and the role of Pharmacist in the community. Thiru Gnana Sebastian, Correspondent of PCPS presided over the function and Prof. Dr. R. Senthamarai, Principal of the college welcomed the guests and mentioning the theme regarding 52<sup>nd</sup> Pharmacy Week Celebrations. In her address she highlighted the importance of Pharmacy profession and advised the budding Pharmacist to create awareness to the public regarding the public health. The Rally was flagged off by Thiru J.J.L. Gnanaraj, President, Chamber of Commerce, Thiruchirappalli and Prof. P. Subramanian, Co-ordinator, Periyar Centenary Educational Complex delivered special address to the gathering. In his address, he insisted the students to create awareness to the people about newer Pharmaceuticals thereby to improve the Community Health. Prof.Dr.A.M.Ismail, Vice Principal, Prof. Dr. N. S. Jeganathan, Director (R& D) offered felicitations during the programme. The Rally commenced at Railway Junction and culminated at Periyar Statue of Central Bus Stand. The placards containing messages were carried by students who raised slogans to create awareness about the pharmacist's role in Public Health among the people and Vote of thanks was offered by Prof. Dr. G. Krishnamoorthy, Head, Dept. of Pharmaceutical Chemistry.

On 20.11.2013, as a part of Green Pharmacy Celebrations, tree plantations were done. Many numbers of Saplings were planted by our staff members in our herbal garden.

On 21.11.13, as part of NPW Celebrations 2013, an AICTE sponsored National Seminar on "Current Trends in Immunomodulators" was organized by the Dept.of Pharmacology. More than 100 delegates from various institutions attended and benefited.

On 22.11.13, a Pharma Quiz programme was organized for all Pharmacy students of our college. The programme was conducted by Dr.T.Shri Vijaya Kirubha, HOD i/c, Department of Pharmacognosy with the participants of five team of students from D.Pharm, B.Pharm and M.Pharm courses.

On 23.11.13, "Pharmacist – A Health Care Professional" theme related lecture was delivered by Prof. Dr.N.S.Jegenathan, Director (R&D),PCPS at our college auditorium. Nearly 300 students attended and benefited by this programme.

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### REPORT OF 18<sup>th</sup> ANNUAL NATIONAL CONVENTION OF ASSOCIATION OF PHARMACEUTICAL TEACHERS OF INDIA –APTICON 2013

18<sup>th</sup> Annual National Convention of Association of Pharmaceutical Teachers of India (APTICON 2013) was organized at Vikas Institute of Pharmaceutical Sciences, Rajahmundry, Andhra Pradesh during 25<sup>th</sup> – 27<sup>th</sup> October. The focal theme of the convention is "Enhancing the Quality of Pharmacy Education and Research to Meet Global Challenges". Nearly 500 registered delegates registered for the convention and participated actively in various Scientific Sessions. All the delegates were extremely happy with the facilities provided by the LOC and expressed their heartfelt thanks particularly to Dr.T.V.Narayana, Secretary of LOC for the excellent hospitality.

A Pre-convention Workshop on "Leadership in Training (LIT)" to the Pharmacy Teachers was conducted on 25<sup>th</sup> October 2013 from 11.00 AM to 2.00 PM. The Pre-convention Workshop and e-Poster / Oral Presentation Sessions were inaugurated by Prof. K. Chinnaswamy and Prof. B.G. Shivananda, Secretary, APTI, Prof. K.P.R.Chowdary and Dr.T.V.Narayana on 25<sup>th</sup> October 2013 at 11am. Nearly 70 delegates participated in the Pre-convention workshop and Dr.Jagannatha Rao , Director, Success Secrets, Bangalore conducted the workshop in more interactive manner. The participants expressed that this sought of workshop is useful for the teachers and helps in developing leadership qualities and there by moulding the career of the students in effective manner.

The EC Meeting of APTI was held on 25<sup>th</sup> October at 12 noon at the venue. The members congratulated the LOC particularly the Chairman, Prof .K.P.R. Chowdary and LOC Secretary, Dr.T.V.Narayana for the excellent arrangements made for the convention. Dr.T.V.Narayana briefed the APTICON 2013 convention programme and EC approved the same.

The Inaugural function of APTI 18<sup>th</sup> Annual National convention was held on 25<sup>th</sup> October 2013 at 5pm at Dhanvathari Auditorium of Vikas Institute of Pharmaceutical Sciences, Rajahmundry, AP. Prof. B. Suresh, President, Pharmacy council of India , Vice-Chancellor, JSS University, Mysore was the Chief Guest and Dr.Mahesh Burande, President, APTI Central Presided over the Convention. Prof.C.K.Kokate, Vice-Chancellor,

KLE.University, Belgaum, Prof.K.Chinnaswamy, Prof .Emeritus, MMC, Chennai, Prof.Tulasiramdas, Vice-Chancellor, JNT University, Kakinada, Prof. G.S.N..Raju, Vice- Chancellor, Andhra University graced the Inaugural ceremony as Guests of Honour.

Prof. K.P.R.Chowdary, LOC- Chairman welcomed the gathering and briefed the delegates about the theme and objectives of APTICON 2013. He informed the members that the college VIPS was honoured to host the prestigious event of APTI at Rajahmundry, AP and highlighted the unique features adopted for the first time in this APTI convention ie, e-Poster presentation of research papers by the delegates, National Essay Contest for Pharmacy Teachers and Release of 5 Rs/- Postal Stamp of APTI convention. Dr.T.V.Narayana, LOC Secretary thanked the office bearers of APTI Central for the opportunity given to oragnise the convention at Vikas Institute of Pharmaceutical Sciences and APTI-AP State Branch for the support rendered by the members. He thanked all the Patrons, sponsors, advertisers, Chairman and Co-chairman of various scientific sessions, Evaluators for their active participation and support. Later newly elected APTI Central President Dr. Mahesh Burande, Vice- Presidents Dr. R.S. Bhambar, Dr. B.P. Nagori took the oath administered by the Chief Guest Dr. B.Suresh.

Chief Guest Dr..B.Suresh in his key note address urged the Universities and Colleges to nurture the pharmacy students under need- based education by enhancing research and quality of teaching. He conveyed that introduction of Drug Information Centers along with Pharmacy Practice Centers in 300 bedded hospitals was yielding good results and would be helpful in counseling and guiding patients in using drugs prescribed by the doctors and also in reducing drug-induced diseases and stressed the need to increase this practice in other hospitals also. He called upon pharmacists to work in hospitals, urban and primary health centers instead of looking for jobs only towards manufacturing sector. He advised the delegates that the expectations of pharmaceutical industry and profession are very high and students need to enhance their knowledge level to get better employment in Pharmaceutical industries, hospitals and also in drug stores.

Prof. Mahesh Burande, President, APTI gave his presidential address, Prof Burande said that his mission was to provide necessary facilities to make better pharmacy teachers with cutting edge knowledge and efficiency. He added that teachers should update themselves with CEP, CPD programmes regularly to ensure that quality education and research will be provided to the students at all levels. He informed the delegates that APTI and his new team aim is to have a Pharmacy Teacher Training Institute at Bangalore and requested all to support the noble cause.

Prof. C.K. Kokate, Vice Chancellor, KLE University, Belgaum, Prof. G. Tulasiram Das, Vice-Chancellor, JNTUK, & Prof.K.Chinnaswamy, Emeritus Professor are the Guests of Honor addressed on various issues pertaining to the quality of pharmacy education and research.

**APTI Awards:**

During Inaugural function several APTI instituted awards and prizes were presented to the following for their excellence in pharmacy teaching, research and administration.

1. **APTI Young Pharmacy Teacher Award 2013 to Dr. Srinivas Mutalik**, Manipal University, Manipal, Karnataka
2. **BVDUPCP Pharmacy Teacher of the year Award 2013 to Dr. Anita A Mehta**, LM College of Pharmacy, Ahmedabad, Gujarat
3. **IPER's Principal of the year Award 2013 to Dr. Sanjay Javarilal Surana**, RC Patel Institute of Pharmaceutical Education and Research, Shirpur, Maharashtra
4. **Dr. Mrs.Manjushree Pal Memorial Award for the Best Pharmaceutical Scientist -2013 to Dr. (Mrs) Mangal S Nagarshaker**, Bombay College of Pharmacy, Bombay
5. **Prof. C.J.Shishoo Award for Research in Pharmaceutical Sciences to Prof. Padma V Devarajan**, Institute of Chemical Technology, Mumbai.
6. **Late Smt. Kamala Ben Vavia Memorial Award 2013: Prof. C.R Mahendra Shetty, Bangalore** was honoured by APTI for his life time services rendered to the Association.

Awards for the Best Papers published in APTI journals of **IJOPP** and **IJPER** in different branches of Pharmacy were presented during the Inaugural function.

**IJOPP Awards for the year 2013:**

1. **Late Smt.V.G. Yeole Memorial award to Showande SJ, Olaifa OA**, Faculty of Pharmacy, University of Ibadan, Nigeria
2. **Shri. Ishwar N. Hukkeri Memorial award to Stejin J, Kishore KV, Nandha KN, Srinivasan A, Arul PKC, Kannan S,JKKMMRF's-Annai JKK Sampoorani Ammal College of Pharmacy, Tamil Nadu.**

**IJPER Awards for the year 2013**

1. **Dr.R.L.Nicore award to Sushil Kumar, Sushama Talegaonkar\*, Lalit M.Negi, Zeenat I. Khan**, Jamai Hamdard University Delhi .
2. **Prof. S. B. Sonawane Memorial award to Kamta P, Namdeo\*, Sushant K, Shrivastava, Ramesh Chandra// Bilaspur**
3. **Prof.DuggiralaVisweswaram& Prof. Sreemantula Satyanarayana award to Mamta FarswanSingh\*, VinodSingh, Rathore S.P, AnupamBisht, VeermaRam// Uttarakhand**
4. **Prof. B. M. Mithal Memorial Award to B.G. Nagavi// UAE**
5. **Al-Ameen College of Pharmacy Award to JaynarayanTripathi, Reena, Kumari, VrishDhwaj, Ashwlayan\*, Parveen Bansal, Ranjitsingh.//MIET Meerut**

6. **St. John's Pharmacy College Award to Abhilasha Gupta, S.T.,Bhagawati, B.S, Muddukrishna, Jagadish P.C, Krishnamurthy Bhat\***
7. **Late Sri MurugappaSirsi Memorial Award, 2013 for Best Poster Presentation to Ms .K. Hema Sahithi**, JSS College of Pharmacy, Mysore.

**Felicitation to Senior Teachers of the AP State:**

LOC, APTICON 2013 has felicitated the following senior teachers (rtd) from AP State for their life-long services to pharmacy teaching and research.

1. **Prof .C.K. Kokate (Kakatiya University, Warangal)**
2. **Prof. D. Visweswaram (Andhra University, Visakhapatnam)**
3. **Prof. D. Venkata Rao(Andhra University, Visakhapatnam)**
4. **Prof. V. Malla Reddy (Kakatiya University, Warangal)**

Cash awards ( Rs. 10,000 for winner and Rs. 5000 for 2<sup>nd</sup> ), mementos and merit certificates were presented to the following winners of **National Essay Contest** for Pharmacy Teachers conducted on the occasion of APTICON 2013

1. **First prize Winner: Dr.V.Sai Kishore**, Bapatla College of Pharmacy, Bapatla, AP
2. **Second prize Winner: Prof. R. D. Patankar** , Abhinav Education Society's College of Pharmacy, Pune, Maharashtra.

President APTI and his team of office bearers had felicitated the LOC Chairman Dr. K.P.R. Chowdary and Secretary Dr. T.V. Narayana as token of appreciation for their painstaking efforts in arranging all the required towards the success of the 18<sup>th</sup> Annual National APTI Convention.

A Convention Symposium on theme "Enhancing the Quality of Pharmacy Education and Research to Meet Global Challenges" was held on day 2 i.e, 26<sup>th</sup> October 2013 at 9.30 A.M. Prof. V.B.Desai and Dr.M.D.Karvekar chaired the Convention symposium. Dr. C.K. Kokate, Dr. Rao VSV and Dr. Manjari Gharat addressed on the theme in different perspectives like education, research and practice.

**Memorial and Plenary Lectures:**

The following Memorial and Plenary Lectures were held during 2<sup>nd</sup> and 3<sup>rd</sup> day of the Convention i.e, 26<sup>th</sup>-27<sup>th</sup> October 2013.

1. **KLE Oration Lecture by :Dr. G. Ramesh (Warangal)**

Topic: Teaching: It's Implications on Quality Assurance

Chairman: Prof. S. L. Nasa (New Delhi), Co-Chairman: Prof.Ganga Rao Battu (AU)

2. **Prof. M.L. Schroff Memorial Lecture by :Dr.Gopal Muralidharan (Bangalore)**

Topic: 'Clinical Trials - Operational Risks and Risk Mitigation'

Chairman: Dr. P. P. Sharma (New Delhi), Co-Chairman: Dr. S.V.U.M. Prasad (Kakinada)

**3. Dr. G. Bagavant Memorial Lecture by :Dr. Rakesh Gupta, (Jaipur)**

Topic: LIMS in Pharmaceutical Industry: A trend Setter

Chairman: Prof. M. N. Saraf (Mumbai), Co-Chairman: Prof. P.N. Murthy (Berhampur)

**4. Prof. G.P. Srivastava Memorial Lecture by :Dr. M.N.A. Rao, (Hyderabad)**

Topic: The Importance of Skill Development in Enhancing the Quality of Pharmacy Education

Chairman: Prof. N. Udupa (Manipal), Co-Chairman: Prof. K.V.S.R.G. Prasad (Tirupati)

**5. 7<sup>th</sup> APTI Annual National Convention, Goa Commemorative Lecture by: Dr. T.K. Ravi**

Topic: "Practice Education: Strategies to Strengthen Core Competencies"

Chairman: Dr. S. Gopala Krishna (T.N.), Co-Chairman: Dr. K.V.Ramana Murthy (AU)

**6. 54<sup>th</sup> IPC Pune Commemorative Lecture by::Dr. Ch.V.Rao, CSIR - NBRI, Lucknow**

Topic: Plant based Technologies and Institution based view of IPR protection

Chairman: Prof. T. Satyanarayana (AU), Co-Chairman: Prof. P. Ellaiah (Jeypore)

**7. Plenary Lecture by :Dr. A.G. Raghu (Bangalore)**

Topic: Pharmaceutical Innovations Challenges of Current Century.

Chairman: Dr. Raghurama Rao (Warangal), Co-Chairman: Dr. C.U.M Reddy (Chennai)

**8. Plenary Lecture by :Dr. Valliappan (Annamalai Nagar)**

Topic: Improving Organic Stereochemistry Teaching: Avoid inappropriate use of Stereochemical lexicon

Chairman: Dr. C. Veeresam (K.U.), Co-Chairman: Dr. Y.Narasimha Reddy (KU)

A Panel Discussion was held on 26<sup>th</sup> October, 2013 with APTI office bearers and delegates. Dr. Mahesh Burande, Dr. R.S. Bhambar, Dr. B.P.Nagori, Dr. Kranthi Kumar Sirse, Dr. B.G. Shivananda, Dr. Kusum Devi, Dr. William Carey participated as panel members. There was a good interaction by the delegates with panel members of APTI and its

objectives, future plans and various other issues pertaining to quality of Pharmacy education. President APTI Dr. Mahesh Burande welcomed the suggestions given and assured the members that his team will work for the fulfillment of the goals and objectives of APTI.

The Valedictory function of APTICON 2013 was held on 27<sup>th</sup> October 2013 at 12.30 PM. The valedictory function was presided over by Prof. Mahesh Burande, President, APTI. Prof. K.P.R. Chowdary, Chairman, LOC and Prof. T.V. Narayana, Gen. Secretary, LOC presented a brief report of APTICON 2013 and thanked all the Speakers, Chairpersons, Co-Chairpersons, Evaluators, Guests, Delegates and Sponsors of various events for their active involvement and support for the success of APTICON 2013. Dr. T.V. Narayana thanked APTI Central committee and its office bearers for the opportunity given to organize APTICON-2013 at Vikas Institute of Pharmaceutical Sciences, Rajahmundry. The APTI office bearers felicitated Sri. T.Ch. Subba Rao Chairman of Vikas Institute of Pharmaceutical Sciences and entire LOC members with mementoes for the support provided to conduct the APTICON 2013 in a grand manner. Delegates have expressed their satisfaction for the arrangements made by the LOC particularly Prof. K.P.R. Chowdary and Dr. T.V. Narayana for the excellent hospitality and the way proceedings were conducted inspite of the in climate weather conditions.

President APTI and his team of members warmly greeted, appreciated and felicitated Patron of the Convention and Chairman, Vikas Institute of Pharmaceutical Sciences Sri. T.Ch. Subba Rao for providing the excellent platform and hosting the 18<sup>th</sup> National Annual APTI Convention in such a grandeur manner.

**e-Poster / oral Presentations:**

The e-Poster/ Oral Presentations by the delegates were conducted on 25<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup> October 2013. 400 delegates presented their research works in the e-Poster/ Oral scientific sessions. Twenty five senior pharmacy professors evaluated the e-Poster/ Oral Presentations.

Merit certificates and mementos were presented to the First prize and Second prize winners of e-Poster/oral Presentations by Prof. Mahesh Burande, President, APTI during the valedictory function held on 27<sup>th</sup> October 2013 at 12.30 noon.

**Pharmacy Practice:**

**First Prize:** C 111: **Hema Sahithi**, JSS College of Pharmacy, JSS University, Mysore-Kar

**Second Prize:** C 132: **V. Karthikeyan**, Annamalai University, Chidambaram-TN

**Pharmacology:**

**First Prize:** D 117: **Sowjanya. S**, Department of Pharmacology, MLR Institute of Pharmacy, Hyderabad- AP.

**Second Prize:** D 131: **SreeHari. Y**, G.Pulla Reddy College of Pharmacy, Hyderabad-AP

**Pharmaceutical Analysis**

**First Prize:** E 215 : **Deepthi B**, Chalapathi Institute Of Pharmaceutical Sciences, Guntur-AP

E 180 : **Pallavi K Shetty**, Manipal College of Pharmaceutical Sciences, Manipal University, Manipal - Kar

**Second Prize:** E 126: **Nymisha.B**, ChebroluHanumaiah Institute of Pharmaceutical Sciences,Guntur-AP

E 152 : **Ch. Devadasu**, Vignan Pharmacy College, Vadlamudi, Guntur - AP

**Pharmacognosy**

**First Prize:** F 134: **Anil U. Tatiya**, R. C. Patel Institute of Pharmaceutical Education and Research, Shirpur, Maharashtra.

**Second Prize:** F 131: **Habibur Rahman**, Assam Down Town University, Guwahati, Assam.

**Medicinal Chemistry**

**First Prize:** G 110: **Nilesh Y. Jadhav**, H.S.B.P.V.T's G.O.'s College of Pharmacy, Kashti, Mah .

**Second Prize:** G 114 : **B. Haseena Banu**, Krishna Teja college of Pharmacy, Tirupati- AP

**Pharmaceutics**

**First Prize:**

1. H 166 : **V.M. Subrahmanyam**, Manipal College of Pharmaceutical Sciences, Manipal University, Manipal- Kar

2. H 257 : **Naseeb Basha. Shaik**, G.Pulla Reddy College of Pharmacy,Hyderabad- AP

3. H 112 : **V. Sowjanya**, Vikas Institute of Pharmaceutical Sciences, Nidigatla, Rajahmundry- AP

4. H 209 : **Babji Movva**, Vignan Institute of Pharmaceutical Technology, Duvvada, Visakhapatnam- 530049

**Second Prize:**

1. H 148 : **Showri babu CH**, ChebroluHanumaiah Institute of Pharmaceutical Sciences, Chandramoulipuram, Guntur-AP

2. H 196 : **Anushakalluri**, Vignan pharmacy College, Vadlamudi, Guntur - AP

3. H 107 : **K.V.N.R. Aishwarya**, Vikas Institute of Pharmaceutical Sciences, Nidigatla, Rajahmundry-AP

4. I 101 : **Kalyani A.L.T**, University College of Pharmaceutical Sciences , Andhra University, Visakhapatnam

APTI President Dr. Mahesh Burande announced that the next 19<sup>th</sup> APTI Annual convention will be held at Pune by Maharashtra APTI State branch. Dr.P.D.Chowdary Dean, Pune University thanked the APTI central committee for the opportunity given and invited the delegates to extend their support by participating in big number and make it a grand success. The Valedictory function concluded with vote of thanks proposed by Dr. M.D. Dhanaraj, Joint Secretary, LOC.

**Prof. K.P.R.Chowdary**

Chairman, LOC- APTICON – 2013

**Dr. T.V.Narayana**

Secretary, APTICON-2013

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**Prof. B.G. Shivananda,**

**Secretary - APTI.**



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### 18th Annual National APTI Convention at Rajamundry.



### Glimpses of 18th Annual APTI Convention.



Awardees being Felicitated at the APTI Convention.



18th Annual APTI Convention - A Gala affair.



**Ph.D AWARDEES**



Dr. Rahul Laxman Jadhav, Assistant professor, Department of Pharmaceutical Chemistry, Satara College of Pharmacy, Satara, Maharashtra has been awarded the degree of Doctor of Philosophy (Ph. D.) in pharmacy by Shivaji University, Kolhapur for the thesis entitled " Synthesis and Evaluation of Substituted 3,5-Bis (Arylidene)-4-piperidone Derivatives as Anticancer and Anti-HIV Agents". The

research was carried out under guidance of Prof.(Dr.) C. S. Magdum, Principal, Rajarambapu College of Pharmacy, Kasegaon, Dist: Sangli.

Dr. R. L. Jadhav has more than 7.7 years of teaching experience at UG level and 2 years at PG level. He has published 5 International and 16 National publications in various journals. He has guided 02 PG students. He has attended and presented research papers in various national and International conferences. He is registered Pharmacist of M.S. and life member of APTI. He gave credit to his success to the blessings of his parents, wife's support and teaching & nonteaching friends of college.

\*\*\*\*\*



Dr. Pradum Pundlikrao Ige, Assitant Professor, at R C Patel Institute of Pharmaceutical Education & Research, Shirpur, has been awarded the degree of Doctor of Philosophy (Ph. D.) in Pharmaceutical Sciences by North Maharashtra University, Jalgaon, and Maharashtra on 20<sup>th</sup> September 2013 for topic entitled "Design, Development & Evaluation of Gastro Retentive Dosage

Form". He has conducted his research work under the guidance of Dr. Surendra G. Gattani, Head, School of Pharmacy, Swami Ramanand Teerth Marathwada University, Nanded, and Maharashtra.

He has 10 years of teaching, industry and research experience. He has published 15 research articles in various national/international journals of high impact factors. He is well-versed and developed standard operating protocols and GMP procedures to face the international and national regulatory bodies including USFDA, TGA and MHRA. He has also presented various research papers in national/international conference, seminars, symposia and workshops. He is currently working on the topics of

research such as expertise in vitro and ex vivo methods to assess single unit and multiple unit dosage form and designing and developing solubility enhancement methods for biopharmaceutical classification system-II drugs-nanoparticle Approach. He is on editorial board and reviewer of various national/international journals. He is a life member of various professional bodies like APTI and a Registered Pharmacist in Maharashtra State Pharmacy Council.

\*\*\*\*\*



Dr. Jameel Ahmed S. Mulla, Assistant Professor, Department of Pharmaceutics, K.L.E. University's College of Pharmacy, Hubli, has been awarded the degree of Doctor of Philosophy (Ph.D) by the Karnatak University, Dharwad for his research work entitled "Studies in Synthesis, Pharmacological Evaluation of Heterocyclic Compounds and their Incorporation into Solid Lipid

Nanoparticles". The research work was carried out under the guidance of Dr. I.M.Khazi, Professor, Department of P.G. Studies in Chemistry at Karnatak University, Dharwad.

Dr. Mulla has over 8 years of teaching experience in Pharmaceutical Sciences. He has published 18 research papers and 3 review papers in National and International journals. He has attended many National and International Conferences, Seminars, Symposia & Workshops and presented several research papers. He is a Registered Expert at Nano Mission (Approved by Govt. of India), Department of Science & Technology, New Delhi. He is a life member of APTI and registered with Karnataka State Pharmacy Council.

\*\*\*\*\*



Dr. Paresh Ramesh Mahaparale, Associate Professor, Department of Pharmaceutics, Dr. D. Y. Patil Pratishthan's Padm. Dr. D. Y. Patil College of Pharmacy, Akurdi, Pune, Maharashtra, has been awarded the degree of Doctor of Philosophy (Ph. D.) by Shivaji University, Kolhapur, Maharashtra, in Pharmacy under faculty of Engineering and Technology. He carried out research work entitled, "Development and

Evaluation of Modified Release Dosage Forms for BCS class I and class II Drugs", under the guidance of Dr. B. S. Kuchekar, Principal and Professor Maharashtra Institute of Pharmacy, Erandwane, Pune.

He has over 13 years of teaching experience and has published more than 25 research articles in various journals of national and international repute. He has attended and presented research work in various conferences, symposia and workshops. He has guided 16 postgraduate students. He is a life member of APTI. He acknowledges management, principal and all the staff members for their support and cooperation during the entire course of research work.

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## BOOK REVIEW

**VIEWS AND REVIEWS 2, Harkishan Singh,**

**Association of Pharmaceutical Teachers of India (APTI), Bangalore, 2012, 300pp.**

A few years ago, I had read "VIEWS AND REVIEWS Vol 1", by Prof. Harkishan Singh with keen interest. I learnt a great deal about the author as a person and his professional passion. It is after a hiatus of four years that APTI has published VIEWS AND REVIEWS Vol 2. The sturdy hardbound volume with an aesthetic dust cover bearing the title and the photograph of Prof. Harkishan Singh is a visual treat. Pleasantly, the hardcover is also a replica of the dust cover. The whole volume has the stamp of high quality which has become the hallmark of all APTI publications. Hardcover books are made for durability and reference. This volume, definitely serves both these purposes.

The volume has 23 chapters which are reprints of articles by Prof. Singh published during 2008-2011. It is a repository of rare information about doyens of Indian pharmacy and the pharmacy profession. The book is chock-full of interesting tidbits. For example, the ghee prepared from centrifuged butter contains more vitamin A compared to traditional methods (Ch.3). Dr. Singh had communicated an article "Platinum Jubilee of the Indian Pharmaceutical Association in 2010 or 2015?" (Ch 5) to Pharma Times in 2008. The footnote to the article mentioned that "The article did not appear in print". I keep wondering why Pharma Times refused to print the article written by an erudite person as Dr. Singh! The only reason I can think is that they wanted to keep away from the controversy, the title suggested. Historically, the fore-runner of IPA was "United Provinces Pharmaceutical Association (UPPA)" which started functioning from BHU and was registered in 1935. In December 1939, the UPPA general body accepted a resolution to change its name to IPA. The annual meeting held in 1941 was termed as "Fifth Annual General Meeting". Thus, arguably, IPA started in 1935; hence platinum jubilee should have been in 2010. During 1949, it was thought that the future national language of India will be Hindi hence Indian Pharmacopoeia will have to be written in Hindi (Ch.7, p99).

Another piece of interesting information is that, after the demise of Prof. Khorana, Dr. Singh attended an interview for a position at UDCT, Bombay (Now UICT, in Mumbai). But his selection could not be formalized because Dr. Singh insisted on housing facility which was not accepted. Hence, he did not join UDCT (Ch7, p107). When I read it, my imagination run riot! If Dr. Singh had joined UDCT and not continued at Chandigarh, there would not have been "Chandonium iodide" which is named after Chandigarh. But, still Dr. Singh would have discovered the molecule and probably it would have been called "Bombonium iodide" or "Matunga iodide"!

Another valuable feature of this book is that it highlights the great contributions of a number of persons to the development of the pharmacy profession in India, whose names are not known to the younger generation. For example, there is a long chapter on Dr. Homi Ruttonji Nanji (Ch.9, 17 pages long). Dr. Nanji was the first person who initiated the move to establish a Central Institute of Pharmacy in 1953, which later fructified as NIPER. He started his career at UDCT as Tata Trust Reader in Pharmaceutical Chemistry and later moved on to business & industry. He was the spirit behind the establishment of OPPI. He pleaded for the removal of the drug price control and was critical of the Patent bill.

Another great name is T.K. Gajjar, Tribhovandas Kalyandas Gajjar. He was instrumental in establishing Alembic Chemical Work and Kala Bhavan, which later developed as Faculty of Technology & Engineering of the M.S. University, both at Baroda. He took M.A degree in 1884 from Bombay with chemistry as major. He was interested in engineering hence learned mathematics, Later he attended classes at famous Grant Medical College to learn about medicine. He also began learning law but lost interest. He was a man of ideas. It was said that "Gajjar woke up every morning with the idea of a new project". In 1898, the marble statue of Queen Victoria at Esplanade ground in Bombay was blackened with coal tar by a frustrated army recruit. When various steps by the government failed, Mr. Gajjar was approached and he succeeded in the task in three months. Encouraged by this success, he later developed a chemical process for cleaning pearls and earned good amount of money. From that money he started a laboratory which later became an institute for training students in M.A, Chemistry. Alembic company was started by Mr. Kotibhaskar and B.D.Amin, students of Gajjar and Mr. Gajjar himself was the consulting technical director.

Another interesting personality described at length is Mr. Khwaja Abdul Hamied (Ch.14, 17 pages), father of Dr. Yusuf K. Hamied, the present chairman of CIPLA. He obtained a doctorate from Germany in 1926, established CIPLA in 1935 and played a crucial role in establishing CSIR. While working for his doctoral thesis in Germany, he went for a short vacation during 1925 Easter holidays. There he met a young girl, Luba of Polish origin, whom he married later after coming to India in 1927. When he came to India, he conceived a Technical Research Institute for the

industrial development of the country. In 1942, he happened to meet Sir Ramaswami Mudaliar who was the member for industries in Viceroy's Executive council and discussed his plan for a Technical Industrial Research Institute. The plan was accepted and a research institute was setup under the name "Council of Scientific and Industrial Research (CSIR)". Later also Dr. Hamied was closely associated with the functioning of the CSIR. He once wrote "The credit for the idea to establish such a Scientific Research Council must in all fairness go to me". He had great interest in education. He was critical of the way the word "Professor" is used in loose and undignified manner. It was his view that the title "Professor" should be made a title to be conferred by the university or the Ministry of Education on the recommendation of a competent body. It should be given to only those who have acquired All-India and International recognition.

There is a long chapter on Colonel Sir Ram Nath Chopra (Ch.2, 34 pages) who pioneered the research on Indian medicinal plants. His book, "Glossary of Indian Medicinal Plants", published by CSIR, is still a standard reference volume. There is another interesting chapter on Dr. B. Mukerji (Ch. 10) who was a student of Sir Ram Nath Chopra and a great pharmacologist who conceptualized a National Institute for Drug Research which became a reality in the form of "Central Drug Research Institute. He became the Director of CDRI. Dr. B. Mukerji lecture at CDRI is an annual event. I have heard couple of them when I was a research scholar at CDRI, Lucknow.

The book describes many other personalities who have made immense contribution to the profession directly or indirectly. But due to lack of space I cannot write about them.

In a two page chapter on "We and our Students" (Ch.17) he quotes a booklet published by the Massachusetts Institute of Technology. He quotes: "The student's qualifications must include the ability to learn and desire to learn. The instructor's qualification must include qualities of inspirational leadership, the desire to teach, knowledge of the subject and its relationship to other fields which lies at its borders and ability to transmit knowledge to the student so that it is alive and meaningful".

There are many more interesting articles. The articles on Prof. Schroff, Prof. Srivastava, and Prof. Gaund will inspire young teachers (When Prof. Srivastava expressed his worry about where to live after retiring from BHU, Prof. Schroff who was in Calcutta, promptly wrote "I shall shift to Banaras, hire a house and you can live with me")

Anybody who is interested in Pharmacy profession should read the book for its rich information and history.

"If you don't know history, then you don't know anything. You are a leaf that doesn't know it is part of a tree." - Michael Crichton

- Dr. M. N. A. Rao

Divis Laboratories Limited, Hyderabad

**APTI Headquarters:** 620/D, 35th Cross, 2nd Block, Between ESI Hospital and RTO Office, Rajajinagar, Bangalore- 560 010

M: +91 98440 23000 / 99647 37136, Tele: 91 80 23325094

Email: aptibulletinalerts@gmail.com, aptienquiry@gmail.com Home page: <http://www.aptiindia.org>

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## **ASSOCIATION OF PHARMACEUTICAL TEACHERS OF INDIA (APTI)**

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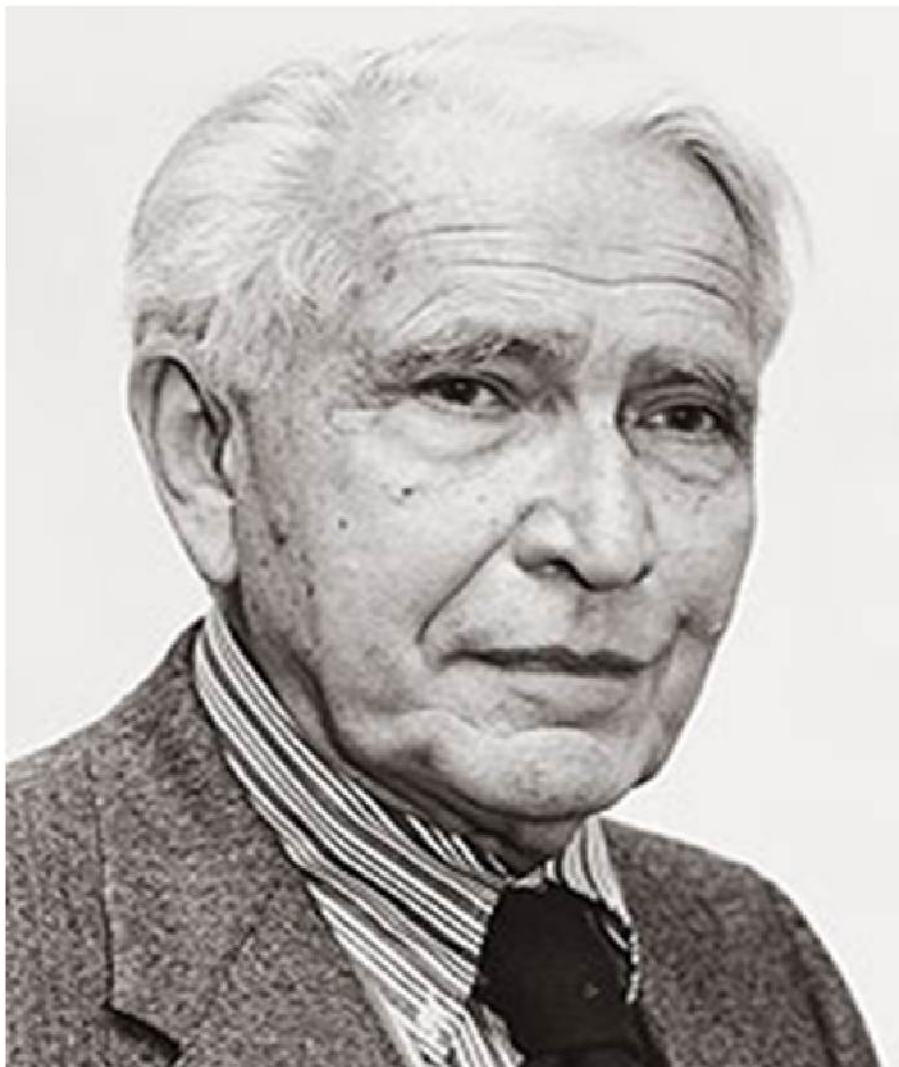
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**COLLECTOR'S ALBUM**



**Erwin Chargaff**

(11<sup>th</sup> August 1905 - 20<sup>th</sup> June 2002)

He was an Austrian biochemist whose experiments provided crucial information allowing Watson, Crick, and Wilkins to elucidate the double-helix structure of DNA. His invention is known as **Chargaff's rules** state that DNA from any cell of all organisms should have a 1:1 ratio.

Contributed by  
**Kuntal Das**, Asst. Professor  
Krupanidhi College of Pharmacy,  
Bangalore.

## Virosomes: A new vehicle for drug delivery and Targeting

Nimisha Jain\*, V Kusum Devi, Raman Dang, Uday Bhosale

\*Dept of Pharmaceutical Marketing and Management. Al-Ameen College of Pharmacy, Bangalore, India

### INTRODUCTION:

Viruses are potential vehicles for drug and gene therapies due to their natural ability to infect specific cells and transport genomic material to the nucleus. Using recombinant virus can improve transfection efficiency while evading degradation by lysosomes thus enhancing drug delivery. Virosomes are reconstituted viral envelopes that can serve as vaccines and as vehicles for cellular delivery of macromolecules. The prospect of drug delivery and targeting using virosomes is an interesting field of research and development. Because virosomes are biocompatible, biodegradable, nontoxic, and non-autoimmunogenic, attempts have been made to use them as vaccines or adjuvants as well as delivery systems for drugs, nucleic acids, or genes for therapeutic purposes.

The external surface of the virosome resembles that of a virus particle, with spike proteins protruding from the membrane, but their interior compartment is empty. Virosomes were first prepared by Almeida et al., who inserted purified influenza spike proteins into preformed liposomes. Thereafter a range of viral envelopes have been reconstituted, including those of Sendai virus,<sup>2-4</sup> Semliki Forest virus (SFV), vesicular stomatitis virus (VSV), and Sindbis virus. Because virosomes display viral envelope glycoproteins, which, in their native conformation stimulate humoral responses, they are highly effective as vaccine antigens and adjuvants. Moreover, since the receptor-binding and membrane-fusion properties of the viral envelope glycoprotein can be preserved, virosomes can be used as transport vehicles for cellular delivery of biologically active macromolecules.

The main difficulties involve creating viral vectors lacking replication machinery while maintaining the ability to infect mammalian cells. Various viruses have been tested and the most common used are lentivirus, retrovirus and adenovirus. However, the use of viruses raises concerns related to their safety due to the risk of insertional mistakes and activation of proto-oncogenes, viral replication and strong immune responses.

Moreover, retroviruses have size loading limitation as they can only infect dividing cells therefore they are most used for ex vivo delivery. Lentivirus on the other hand can deliver gene into nondividing cells as well as adenovirus (the virus remains extrachromosomal which reduces the chances of disrupting cellular genome). These systems are most likely to be applied in cytotoxic gene therapy.

### ADVANTAGES OF VIROSOMAL DRUG DELIVERY

- Virosomes are biodegradable, biocompatible, and non-toxic
- No disease-transmission risk.
- No autoimmunogenicity or anaphylaxis
- Broadly applicable with almost all important drugs (anticancer drugs, proteins, peptides, nucleic acids, antibiotics, fungicides)
- Enables drug delivery into the cytoplasm of target cell.
- Promotes fusion activity in the endolysosomal pathway
- Protects drugs against degradation
- Virosomal technology is approved by the FDA for use in humans, and has a high safety profile

### METHOD OF PREPARATION

#### Selection of virus

Virosome are reconstituted viral envelope that can be derived from different virosome. Influenza virus envelope is the most commonly used to produce virosome but virosomes can be made from Sendai virus, Epstein burre virus, HIV, Sindbis, Semliki forest, virus Friend murine leukemia virus, herpes simplex virus.

#### Selection of antigen

Antigen is selected as per requirement. Antigen such a parasite, carcinogenic cell, bacterium or whole cell is used. As antigen such as cell component DNA, RNA or plasmid can also used as antigen. This antigen is coupled to lipid anchor so antigen will ready to load on virosomes

#### Reconstitution of virosome

Virosome solubilised with detergent (octylglucoside, triton x-100, nonidet p-40) Due to solubilization with detergent internal viral protein and genetic material will sediment then detergent is removed by different method such as dialysis and hydrophobic resins from supernatant. Then using ultracentrifugation process viral matrix protein and nucleicapsid is removed. Viral phospholipid (82%) and viral protein is recovered. Now antigen which is already coupled to lipid anchor is mixed with polymer or surfactant solution and this solution is processed with virosome carrier to obtain antigen bound virosome.

## CHARACTERIZATION OF VIROSOMES

**Protein detection:** Virosome preparation should generally result in a relatively uniform protein-to-lipid ratio. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) can confirm the presence of HA protein in the virosomes.

**Structure and size:** Negative-stain electron microscopy can generally be used to determine the ultrastructure and size of virosomes. The staining solutions should preferably be of neutral pH, to avoid acid-induced conformational changes of HA.

**Fusion activity:** Generally virosomes exhibit pH-dependent membrane fusion activity similar to native influenza virus. Virosomal fusion with biological or artificial target membranes can be visualized with a fluorescent resonance energy transfer assay (RET). Alternatively, fusion can be assessed *in vitro* with an excimer assay using pyrene-labeled lipids, where the decrease of surface density of the pyrene-phosphatidylcholine-label on fusion with an unlabeled membrane corresponds to a reduction of excimer fluorescence. Fusion activity also can be indirectly monitored by determining hemolytic activity, which corresponds closely to fusion activity and exhibits a pH dependence identical with that of fusion.

## MECHANISM OF ACTION OF VIROSOME

Virosome act both as a carrier and as an adjuvant with multiple functions during the induction of an immune response. The carrier function comprises the positive effects of embedding the antigen into a higher structure, the virosome particle. The adjuvant function relates to immune stimulating properties of virosome and their components on immune system most importantly virosome succeed in stimulating specific immunity without causing non-specific inflammation.

## DRUG-DELIVERY APPROACHES

Virosome are biodegradable, biocompatible non-toxic. An antigen can be incorporated into virosome, adsorbed to virosome surface and integrated into the lipid membrane either hydrophobic domain or lipid moieties cross-linked to antigen. They are also being considered for HIV-I vaccine research. They were used as a drug carrier mechanism for experimental cancer therapies.

Bioactive drug compounds can be entrapped in the aqueous interior of the virosome or in the lipid membrane of the virosome for facilitated entry of the compounds into the cells. Virosomes are particularly useful for delivering nucleic acids or genes. These compounds are delivered into the host cell cytoplasm on fusion of the virosome with the endosome or plasma membrane. Nucleic acids or genes encoding a naturally occurring protein can be introduced into host cells and can be expressed, provided that the expression cassette contains the proper cis-acting regulatory elements.

Drugs or nucleic acids can be incorporated into the virosome at the time of virosome preparation. The bioactive compound is typically added to the lipid-HA-containing solution following removal of the nucleocapsid. Alternatively, the bioactive compound is initially incorporated into a liposome, which is then fused with a virosome containing two hemagglutinins with different pH thresholds to form a virosome-liposome hybrid.

Proteins also can be delivered to cells via virosome. For example, the gelonin subunit A of diphtheria toxin and ovalbumin have also been successfully delivered by virosome to target cells. Virosomes carrying peptides derived from the influenza nucleoprotein or intact ovalbumin induced strong cytotoxic T lymphocyte responses, which suggests that the encapsulated peptides and proteins gained access to the cytoplasm.

## Targeted Drug Delivery

Ideally one would like to be able to target drug delivery to selected tissues. One can tailor virosomes to targets by incorporating specific molecules (e.g., Fab fragments and ligands) into the virosome's composition. The feasibility of targeted delivery of anticancer drugs by means of virosomal carrier has been demonstrated recently by two independent approaches. In one study, a MAb cross-linked to the surface of virosomes mediated specific targeting of the virosomal carrier containing an anticancer drug (e.g., doxorubicin) to human cancer cells. MAbs can bind specifically to cancer-related antigens, providing a means to target systemically administered virosomes to cancerous tissues. Alternatively, ligands that bind surface receptors on the target cells also can be bound to the virosomes to achieve targeted drug delivery. Tumors of mice treated with targeted drug-loaded virosomes failed to grow, and mortality of these animals was significantly reduced. These positive results will definitely open a new field of applications for virosomal technology.

## ADMINISTRATION OF VIROSOMES

Several formulations have been reported. Generally, virosomes are suspended in buffered saline (135–150 mM NaCl), but other suitable vehicles also exist. These compositions should be sterilized by conventional liposomal sterilization techniques, such as membrane filtration. The formulation also generally contains auxiliary substances as required to simulate physiological conditions, such as buffering agents and isotonicity adjusting agents (sodium acetate, sodium lactate, sodium chloride, potassium chloride, calcium chloride). The concentration of virosomes used in the vehicle ranges from 20–200 mg/mL. These concentrations are varied to optimize treatment with different virosome components or for particular purposes. The virosomes are administered in a variety of parenteral routes, including intravenous, intramuscular, subcutaneous, intra-arterial, and inhalable delivery. In addition, virosomes can be administered topically, orally, or transdermally. The

virosomes also can be incorporated into implantable devices for long-term release.

## FUTURE PROSPECTS

Virosomes represent an innovative drug-delivery system for various biologically active molecules, but especially nucleic acids or genes, and for numerous indications. The surface of virosomes can be suitably modified to facilitate targeted drug delivery. However, their comprehensive pharmacokinetic profile, bioavailability, clinical effects, and stability should be studied thoroughly to ascertain their long-term reliability as a safe, effective, and affordable means for drug delivery and targeting.

## ACKNOWLEDGEMENT

The authors are thankful to Prof. B.G. Shivananda, The Editor, APTI Bulletin for his encouragement and support.

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**Annual General Body Minutes:**

Mr President –Dr Mahesh Burande was invited on the stage, followed by Vice-President, Treasurer, past vice-president Dr Krantikumar Sirse, past president of Andhra Pradesh APTI state branch Dr William Karey were also invited to occupy the chair, Vice-President Dr BP Nagori welcomed everyone and initiated the opening of the panel discussion and open house discussion, briefed about the advantages of online election and committed to upscale the pharmacy profession, briefed about the decentralization of APTI central and invited the members to express their suggestions.

Sri Gopinath, Principal, Annamacharya College of Pharmacy, Rajampet, member of association stated about the preparation of microcalendar, conduct of practical, pharmacy oriented practical class, spoke about the inability of teachers to organize the class and course.

One of the member congratulated the new office bearers, spoke about the mushrooming of colleges, spoke about making MoU between college and industry for project work and requested the APTI to look in to this issue and try to resolve.

Dr.Sanjay Vice president –Gujarat state branch spoke about the part-time distance education type for M.Pharm and condemned such course and requested all members not to encourage such as mushrooming of colleges .

One of the student requested to the members not to encourage destabilization of the pharmacy course.

One of the member spoke about the fixing of pay scale to the pharmacy teachers.

One of the member said about the lack of staff members existed a long back ago and now sufficient staff members are available in all colleges, some of the universities nominate both internal and external examiner from same university. Step should be taken to avoid this and bring examiner (external) from other university

Dr Vivek insisted on bringing the awareness towards public about the pharmacy profession.

Dr Viresham, Warangal requested APTI to prepare report on the quality of pharmacy education and submit to AICTE/PCI bodies to avoid the worst situation of pharmacy.

Mr Prasad JNTU Kakinada, insisted that so many university allot non-pharmacy people for inspection of pharmacy colleges , and added that these activities should be curbed.

Dr valliappan requested the APTI to reveal about the details of academic staff college

Dr Udupa, Dean, Research and Development, Manipal University said that QIP centre are not receiving fund from AICTE and also said that the unfilled seats of colleges should be surrendered.

Mr President requested the past president Mr William Carey to address the queries raised by various members.

Mr William Carey said that as per census the country lacks pharmacists, hence so many colleges have mushroomed, he added that most of the teachers going for higher degree through QIP are not reporting to the parent institution and hence colleges in Andhra Pradesh are reluctant to send the faculty members for upgrading their qualification through QIP.

Requested APTI central to conduct teacher training programme in all the states.

Requested the APTI central to identify and provide the resource person for teacher training course.

Dr Kusun Devi Treasurer was invited to address about the mushrooming of colleges in all the states of the nation.

She said that it could be controlled by:-

Identifying the strength and weakness of students, motivate students for the need and suitability of industry, improve placement and initiate the students to become more competitive, improve the communication skill of students once these things are taken care the institute develops itself and students prefer to enroll in the grade colleges only, so that all other substandard colleges will be severely affected that might lead to fall off in the number of colleges.

Mr President invited KPR Chowdary, TV Narayana and Prof BG Shivananda to release postage stamps

KPR Chowdary addressed that VIPS and LOC insisted postal department to release a stamp on APTI posters for the first time in the history of APTI conventions

Vice-president requested that PG inspection should be done to all the pharmacy colleges, and also added that members should send a message to higher education minister about the issue

Dr Krantikumar Sirse past Vice-President of APTI central said that the BOS should take necessary step to convince the Vice-Chancellor of universities for fixing the internal and external examiners. Addressed that rallies should be organized to bring awareness about pharmacy towards the general public,

And also said that change of syllabus once in every five years to impart quality education should be done

Vice-president Dr RS Bhambar highlighted about the various problems of colleges, syllabus, mushrooming of institutes and invited Mr President to address the issues and provide the microcalendar

Mr President thanked all the members, staff for their contribution for the convention, requested the members to come out with queries and problems along with some solution. Stated that a calendar has been made on 20<sup>th</sup> July 2013 to find the solution to the issue, added that APTI promotion committee is made to improve awareness in the public, said that stamp of APTI 18<sup>th</sup> National convention will promote pharmacy

Said that APTI will answer and give information about programme in 24 hours in mailed to APTI address selling of certificate to medical store should be restricted

Highlighted that TN branch conducted campus interview to pharmacy people/program on patient counseling to Pharm D students

Said that through word ZAP APTI shall be connected to your mobile for various programmes and developments

Spoke about various committee allotted for accomplishing and attending various issues in the pharmacy profession

Requested the members to participate in various programme that will be organized by APTI, said that since 8000 members are there we shall request insurance company for insurance to pharmacy teachers, requested all members to update faculty profile, said that every pharmacy college should be attached to a drug store, hospital and an industry. Said that APTI will provide opportunity for every pharmacy person to express his suggestions.

## Minutes of the Special APTI Meet during 65<sup>th</sup> IPC at New Delhi held on 21<sup>st</sup> Dec, 2013

APTI Specially convened Meeting was held during the 65<sup>th</sup> IPC at NEW Delhi. The following members attended and actively participated in the meet.

Dr. M.D Burande, Dr. B.P Nagori, Prof. B.G Shivananda, Dr. Raman Dang, Dr. F.V Manvi, Dr. G.K Rao, Dr. T.R Bhardawaj, Dr. N. Udupa, Dr. Mahendra Rana, Prof SK Saha, Dr. R.S Bhambar, Dr. K.L Senthil Kumar, Dr. N. Senthil Kumar, Dr. H. Doddayya, Dr. M. Aruna Devi, Dr. Sharat Wakode, Dr. Meenakshi Chauhan, Dr. Vinesh Kumar, Dr. Deependra Singh, Dr. Manoj Sharma, Dr. K.V Ramana, Dr. G.K Mallaiam, Dr. P. Srinivasababu, Dr. Dayakar, Dr. B.K Satheesha Babu, Dr. G. Saummaiah, Dr. A.V Jithan, Dr. Y. Narsimha Reddy, Dr. L.Suryanarayana, Prof. B. Nagaraj, Dr. B. Apaiah Goud, Prof. M.S Ganachari, Dr. A. Sambhaha Rao, Dr. D. Varun, Dr. G. Sumalatha, Dr. S.M Kalshetti, Dr. B.S Venkateswalu, Dr. T.V Narayana, Dr. Kranti Kumar Sirse, Dr. M.N Saraf, Dr. G. Nagarjuna Reddy, Dr. Atmaram Pawar, Prof. B. Gnga Rao, Dr. Ramesh C, Dr. T. Sivakumar, Dr. B. Jaykar

- Dr. Burande welcomed the gathering. Briefed everybody regarding the successful implementation of the APTI Micro Calendar.
- He apprised all that the workshops and seminars are being regularly conducted at various places under the APTI Banner.
- The role of teacher as a true contributor was being emphasized.
- APTI Convention to be held in October at Pune in 2014.
- Dr. Burande was happy to inform all regarding the success of APTI Convention at Rajamundry.
- APTI has a special mission and continuous progress is the key word was justified with continuous involvement of all the state branches.
- There was a special mention of Tamil Nadu workshop on Placements. Which was a big success.
- Dr. Burande again praised regarding the success of APTI online elections.
- It was decided to do amendment in special AGM pertaining to the age for contesting the APTI Elections.
- State Branches plan of action was discussed at length.
- There was stress to form Punjab and Goa state branches.
- The members felt that there should be body formed by the APTI to fight for the teachers rights with the Govt.
- Dr. Manvi talked about the main objectives of APTI. He emphasized on how to improve the standard of teaching.
- There is need to have regular workshops to train the teachers.
- Dr. Ganachari highlighted the main features of arranging workshops through Academic College of APTI.
- Many suggestions poured into work more for the betterment of teachers.
- Dr. TV Narayana related the success story of APTI Convention held at Rajamundry. He was proud to create the concept of e posters and releasing the stamp of APTI during the convention.
- Dr. Bhambar proposed the vote of thanks.

**Dr. M.D Burande**  
President

**Dr. B.P Nagori**  
Vice President

**Dr. R.S Bhambar**  
Vice President

**Prof. B.G. Shivananda**  
Secretary



## Association of Pharmaceutical Teachers of India (APTI)

Headquarters: Bangalore

### *Citation*

#### **Dr. (Mrs.) Manjushree Pal Memorial Award for the Best Pharmaceutical Scientist 2013**

The Association of Pharmaceutical Teachers of India is proud to recognise the immense contribution to the pharmaceutical profession by Dr. (Mrs.) MANGAL SHAILESH NAGARSENKER by bestowing on her the "DR. (MRS.) MANJUSHREE PAL MEMORIAL AWARD for the BEST PHARMACEUTICAL SCIENTIST 2013" during the 18th APTI-ANNUAL NATIONAL CONVENTION being held at Rajahmundry, Andhra Pradesh, from October 25 to 27, 2013.


Dr. (Mrs.) Mangal S. Nagarsenker, born in November 1957, is a B. Pharm., (1978) and M. Pharm., (1981) from UDCT, University of Bombay and Ph. D., (Tech) (1989) from Bombay College of Pharmacy, University of Bombay. She has 31 years of teaching and research experience, starting as Lecturer at Bombay College of Pharmacy in 1982, where she is presently Professor and Head of the Department of Pharmaceutics since 1997. She had a brief stint in industry.

Dr. Mangal S. Nagarsenker has guided 38 M. Pharm., and 21 Ph. D., scholars. Presently, she is mentoring 4 M. Pharm., and 6 Ph. D., (Tech) scholars. Her research is funded by 14 industries and agencies like ICMR, CSIR, AICTE, UGC, DST, Amrut Mody Research Foundation and Lady Tata Memorial Trust, to the tune of INR 5 crores. She has co-authored 2 books, published 30 research papers in national journals and 54 in international journals. She holds 2 Indian patents and applied for 3 more. She has 3 Trademarks registered- Gelupearl, LeciPlex and Lecithmer.

Dr. (Mrs.) Mangal S. Nagarsenker has won 21 Honors/Awards/Prizes for her academic records, papers, posters, presentations and as a researcher. Her research has been successfully converted to marketed products. She has conducted 9 programmes as coordinator/convener/member. She is a consultant to 8 industries. She is associated with 7 journals. She was an invited speaker at 28 events. She has presented papers in 92 conferences/symposia in India and 11 abroad including USA, Italy, Denmark and Singapore.

Dr. (Mrs.) Mangal S. Nagarsenker is an inspiring teacher, using both traditional and modern tools to train the students. A blend of "hear-see-read-speak" is used extensively in her classrooms. She was the chairperson for 'Pharmaceutics and Allied Subjects' and she helped to develop credit based syllabi of B. Pharm., and M. Pharm., courses of Mumbai University. Course for practicals of M. Pharm., was designed for the first time. She is a reviewer of Ph. D., theses for Indian Universities/institutions and National University of Singapore. She is very active in Faculty and Staff Development Programmes.

The Association of Pharmaceutical Teachers of India recognises the enormous impact of Dr. (Mrs.) Mangal S. Nagarsenker on the profession of pharmacy and wishes her many more years of productive contribution to the society.

  
Prof. B.G. Shivananda  
Secretary - APTI

  
Dr. Mahesh Burande  
President - APTI

18th APTI National Convention, Rajahmundry, Andhra Pradesh, 25th - 27th October, 2013



## Association of Pharmaceutical Teachers of India (APTI)

Headquarters: Bangalore

### *Citation*

#### **Young Pharmacy Teacher of the Year 2013 Award"**

The Association of Pharmaceutical Teachers of India is happy to recognize the achievement of DR. SRINIVAS MUTALIK for his contribution to the profession at an early age by conferring upon him the "YOUNG PHARMACY TEACHER OF THE YEAR 2013 AWARD" during the 18th APTI-ANNUAL NATIONAL CONVENTION, 2013, being held at Rajahmundry, Andhra Pradesh from October 25 to 27, 2013.

Dr. Srinivas Mutalik, born in 1974, sharing his birthdate with Mahatma Gandhiji, did his B. Pharm., ( I Rank, Gulbarga University-1996), M. Pharm.,(RGUHS, Bangalore, 1998) and Ph. D.,( Pharmaceutics, Manipal University-2004). He started his career as Lecturer at Bellary, Karnataka in 1998 and later joined MCOPS, Manipal as Assistant Professor, where he is currently Associate Professor. In the meanwhile, he was a Team leader (R&D) at Strides Arco Lab, Bangalore and a Postdoctoral Fellow at University of Queensland, Australia.


Dr. Srinivas Mutalik has guided 12 students at M. Pharm., and mentoring now 5 Ph. D., and 2 M. Pharm., students. His research is funded by industries and three of his research output has resulted in commercial products. He has published 16 articles in national journals and 38 in international journals. He has co-authored 5 chapters in books on NDDS, chronopharmacology and nanotechnology. He has presented his work in 18 conferences, both in India and overseas at Australia, Dubai, Singapore and USA. He has ongoing research projects worth more than INR 6 millions, funded by industry, University of Queensland, Australia, ICMR and DBT. He holds 2 Indian joint patents for his work on treatment of Diabetes.

Dr. Srinivas Mutalik has 12 Honours/Awards/Prizes already bestowed on him for his scholarship, JRF, SRF, Postdoc Fellowship, Young Scientist Award, Good Teacher Award, for posters etc., He is an Editorial Board Member/Reviewer for more than 10 journals in India & International. He is associated with many conferences and member of professional bodies including APTI.

Dr. Srinivas Mutalik has materialised his innovative ideas in research and teaching, such as Transdermal Drug Delivery Systems for Diabetes treatment, Peptide Dendrimers on TDD, grafted polymers in nanotechnology for drug targeting to specific part of the body and so on.

Dr. Srinivas Mutalik has excellent teaching skills, patience and good evaluation process. He is placed very high in the annual rating by his students. Even his UG students are taken to his research laboratories for them to observe and learn. He is involved with industrial training, placement process etc., for his students.

Dr. Srinivas Mutalik has endeared himself to his students and colleagues by his knowledge and skills. He has achieved a lot in a brief span of less than 15 years of professional career. The Association of Pharmaceutical Teachers of India acknowledges his excellent credentials and wishes him to reach many more milestones in the decades to come.

  
Prof. B.G. Shivananda  
Secretary - APTI

  
Dr. Mahesh Burande  
President - APTI

18th APTI National Convention, Rajahmundry, Andhra Pradesh, 25th - 27th October, 2013



## Association of Pharmaceutical Teachers of India (APTI)

Headquarters: Bangalore

### *Citation*

#### **Prof. C. J. Shishoo Award 2013 for Research in Pharmaceutical Sciences**

The Association of Pharmaceutical Teachers of India is elated to confer the "Prof. C. J. Shishoo Award 2013 for Research in Pharmaceutical Sciences" on Prof. Padma Venkitachalam Devarajan for her outstanding contribution to pharmaceutical education and research during the 18th APTI-Annual National Convention 2013, being held during October 25 - 27, 2013 at Rajahmundry, Andhra Pradesh.


Prof. Padma V. Devarajan, born in April 1960, is a B. Pharm., (1980-Gold medallist), M. Pharm., (1983) and Ph. D., (Tech) (pharmaceutics, 1988), all from Mumbai University. She began her career as Lecturer in pharmaceutics in 1986 at UDCT, Mumbai. She joined C. U. Shah College of Pharmacy as Reader in 1988 and went back to Institute of Chemical Technology as Reader in 1991, promoted as Professor in 1998 and since 2009, she has been the Professor and Head of the Department of Pharmaceutical Sciences, Institute of Chemical Technology, Mumbai (equivalent to Principal).

Prof. Padma V. Devarajan has published 4 research papers in Indian journals and 39 in international journals. She has co-authored 7 book chapters. She has presented nearly 200 papers in both national and international conferences held at India and USA. A few of the papers have won prizes. She has completed 9 projects and has ongoing 2 projects, worth more than INR 3 crores, funded by government agencies like ICMR, DHR, DBT, AICTE, CSIR, DAE, DST etc., 3 projects sponsored by industry worth INR 20 lakhs, foreign funding from 8 companies based in USA, Japan and Germany worth more than US\$ 120,000 and 9 minor industry sponsored research projects.

Prof. Padma V. Devarajan has won 13 awards/Honours/prizes for her academic excellence, JRF, SRF, Best Teacher Award, American Association of Indian Pharmaceutical Scientists Distinguished Educator and Researcher Award, CRS Inc. USA recognitions etc., She holds 7 joint patents and applied for 17 patents jointly. 4 patents are licensed to industry for commercialisation. She has guided 40 M. Pharm., 17 M. Sc(Tech) and M. Tech, and 28 Ph. D., scholars.

Prof. Padma V. Devarajan is an innovative teacher, introducing Team Quiz on thematic areas, which enhances the memory power, open book questioning, where the students are given topics and they are asked to frame and design MCQs, which is role reversal. Her innovative research includes nano particle shape influencing splenotropic delivery, a new ligand for targeted delivery to lungs, a new polymer free in situ Gelling system for nasal drug delivery etc., She has been nominated for election to the post of Secretary, CRS Inc. USA - the first Indian and more importantly Indian teacher to achieve this unique distinction. She, as Head, has contributed to the growth of her institution in academics, conducting national and international seminars and conferences.

The Association of Pharmaceutical Teachers of India has noted the giant strides made by Prof. Padma V. Devarajan over the years and wishes that she will continue with the same momentum in the years ahead.

  
Prof. B.G. Shivananda  
Secretary - APTI

  
Dr. Mahesh Burande  
President - APTI

18th APTI National Convention, Rajahmundry, Andhra Pradesh, 25th - 27th October, 2013



## Association of Pharmaceutical Teachers of India (APTI)

Headquarters: Bangalore

### *Citation*

#### Pharmacy Teacher of the Year 2013 Award


The Association of Pharmaceutical Teachers of India is delighted to confer the "PHARMACY TEACHER OF THE YEAR 2013 AWARD" upon Dr. Anita Arunkumar Mehta for being an outstanding teacher-researcher and for her contribution to the profession, in the 18th Annual National Convention of the APTI being held at Rajahmundry, Andhra Pradesh during October 25-27, 2013.

Dr. Anita A. Mehta, born in November 1959, is a B. Pharm., (2nd rank, 1981), M. Pharm., (1st rank, 1983) and Ph. D., (pharmacology, 1992), all from Gujarat University. She joined her alma mater, L. M. College of Pharmacy, Ahmedabad as Lecturer in 1983 and she rose in ranks to become the professor (2007) and In-charge Principal since January 2012.

Dr. Anita A. Mehta has published more than 150 articles including full research papers in national and international journals, has co-authored 6 books and 4 chapters in books. She has presented 10 papers in national and 4 in international gatherings. Her papers/posters have received 21 state and national awards. Her research is funded by UGC, GUJCOST, DST etc., amounting to more than INR 95 lakhs, for both minor and major research works. She has an ongoing collaborative project of INR 50 lakhs funded by industry and institutions like hospitals. She has applied for Indian patent for an oral herbal spray to treat asthma. Her fields of interest, cardiovascular and immune disorders, are benefited by her lead molecules and formulations. She is into the study of progression of diabetes, interstitial cystitis, asthma and cardiac failure. She has done a few clinical surveys in surrounding areas. She has developed newer techniques for pharmacology experiments. She has developed new curricula for UG and PG programmes. She is associated with several programmes as Convener/resource person/joint organizing secretary/member.

Dr. Anita A. Mehta has mentored 43 M. Pharm., and 13 Ph. D., scholars and guiding 5 more. She has guided one USIEF-Fulbright Fellow from USA. She has given invited lectures in several cities of USA and Glasgow, UK. She was nominated by the university to visit Canada for six weeks under Global International Experience Program. She popularises our profession by public lectures. She is the Dean, Faculty of Pharmacy, Gujarat Technological University. She is on committees of AICTE and Ministry of Health and Family Welfare. She is on editorial board and a reviewer for several journals. She has developed a dynamic college website, IP-CCTV, biometric data recording, WiFi campus, herbal garden with 1200 plants etc.,

Dr. Anita A. Mehta has endeared herself to her students and associates by her scholarship, knowledge, skills and amiability. The Association of Pharmaceutical Teachers of India congratulates her for being a role model and wishes her a very eventful life ahead.

  
Prof. B.G. Shivananda  
Secretary - APTI

  
Dr. Mahesh Burande  
President - APTI

18th APTI National Convention, Rajahmundry, Andhra Pradesh, 25th - 27th October, 2013



## Association of Pharmaceutical Teachers of India (APTI)

Headquarters: Bangalore

### *Citation*

#### IPER's Principal of the Year 2013 Award

The Association of Pharmaceutical Teachers of India rejoices in anointing **Dr. Sanjay Kumar Javarilal Surana** with the "**IPER's Principal Of The Year 2013 Award**" for his personal achievement leading to the overall growth of his institution in a short period of a decade to become a premier hub for education and research during the 18th APTI- Annual National Convention being held on October 25-27, 2013 at Rajahmundry, Andhra Pradesh.


Dr. Sanjay J. Surana, born in June, 1968, is a B. Pharm.,(1991) and M.Pharm.,(1993), both from Pune University, Ph. D.,(pharmacognosy, 2001) from DAVV, Indore and D. B. M(1993) from North Maharashtra University, Jalgaon. He joined the just started R. C. Patel Institute of Pharmaceutical Education and Research, Shirpur, Dist. Dhule, Maharashtra State as Lecturer in 1993. He became Assistant Professor and In-charge Principal in 1999 and Professor and Principal in 2003. Under his tutelage, his institute has shown an enviable performance. It was re-accredited by NBA, New Delhi and accredited by NAAC, Bangalore. 6 PG programmes and doctoral studies were initiated. Many sophisticated instruments were procured. State of the art animal house with more than 700 animals as per CPCSEA guidelines is set up. A huge air-conditioned library is functional. Admission strength to B. Pharm., has grown from 30 to 180. 25 of his members of faculty have earned their doctorates and several of them have registered for Ph. D., The institutional results (more than 90%) are higher than the university percentage.

Dr. Sanjay J. Surana has conducted 10 national conferences/workshops/seminars, some of them sponsored by AICTE and one was in collaboration with APTI. Research grants of more than INR 3.5 crores through various funding agencies have been obtained for his and his colleagues' work. Industrial consultancy has fetched INR 7 lakhs with ongoing work of INR 15 lakhs. The institute does cultivation of medicinal plants including ispaghula and they are marketed.

Dr. Sanjay J. Surana has guided 39 M. Pharm., and 10 Ph. D., scholars with 7 more working towards their goal. He has jointly applied for a patent. He has published 27 research papers in Indian journals and 39 in international journals. He has co-authored 5 books. He has won 3 awards - Best Teacher Award of Government of Maharashtra, IPER's Outstanding Performance Award and Dr. P. D. Sethi Award for best paper. He is a member of several organisations including APTI and has attended 5 APTI conventions. He has attended several conventions and workshops throughout the country, Singapore and Malaysia. He encourages his colleagues and students to do the same.

Dr. Sanjay J. Surana, as Dean, Faculty of Medicine & Pharmacy, North Maharashtra University, Jalgaon implemented semester scheme and CGPA pattern for pharmacy courses. He has introduced B. Tech.,(cosmetics) at the university.

Dr. Sanjay J. Surana has a proven record of being an astute helmsman and has visionary goals. The Association of Pharmaceutical Teachers of India is very positive that he and his institution will grow from strength to strength in the days to come and wishes him all the best in his future endeavours.

  
Prof. B.G. Shivananda  
Secretary - APTI

  
Dr. Mahesh Burande  
President - APTI

18th APTI National Convention, Rajahmundry, Andhra Pradesh, 25th - 27th October, 2013



# Association of Pharmaceutical Teachers of India



**January 2014**

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**August 2014**

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**September 2014**

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**October 2014**

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**November 2014**

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**December 2014**

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- 14 Jan Milad un-Nabi
- 15 Jan Makar Sankranti
- 26 Jan Republic Day
- 27 Feb Maha Shivaratri
- 8 Apr Rama Navami
- 13 Apr Mahavir Jayanti
- 14 Apr Ambedkar Jayanti
- 18 Apr Good Friday
- 30 Jul Eid-ul-Fitar
- 15 Aug Independence Day
- 29 Aug Ganesh Chaturthi
- 2 Oct Gandhi Jayanti
- 3 Oct Dussehra (
- 6 Oct Eid ul-Adha
- 22 Oct Naraka Chaturdasi
- 23 Oct Diwali/Deepavali
- 4 Nov Muharram
- 25 Dec Christmas

**Head Office:**

**Association of Pharmaceutical Teachers of India (APTI)**

620/D, 35th Cross, 2nd Block, Between ESI Hospital and RTO Office, Rajajinagar, Bangalore- 560 010

Email: [aptibulletinalerts@gmail.com](mailto:aptibulletinalerts@gmail.com), Home page: <http://www.aptiindia.org>