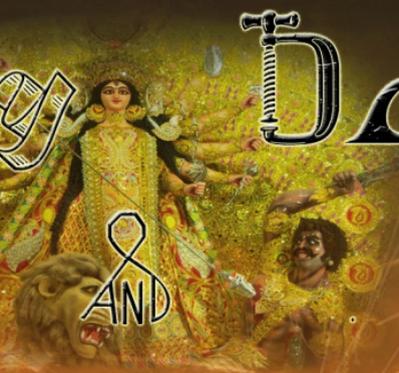


# Happy Dussehra



*B. Pharm-1st*



*Society Congregation*

# Wishes

# PHARM-FANZINE



*M. Pharm-1st*



*Society Postbearers*



Mr. Ramesh Chand Nagarwal has been selected for inclusion in the forthcoming "Who is Who in the world 2011" (28th edition). The book consists of information of 60,000 accomplished people in their respective fields.



Mr. Achint Jain gave an oral presentation at the Third Summer School on Nanotechnology Advanced Drug Delivery Systems from 23rd-27th August, 2010, at NIPER, Mohali.



Mr. Shailendra Panday, Senior Research Fellow, Department of Pharmaceutics, IIT-BHU, India presented a poster on "Synthesis, chemical characterization of some new heterocyclic schiff bases: As potential anticonvulsant agent" in The Eleventh Tetrahedron Symposium - The Frontiers of Organic Chemistry, held from 22nd to 25th June, 2010 at Beijing, China. The Financial assistance was given by CSRI and BHU. Currently, He is pursuing Ph.D in the field of Pharmaceutical Medicinal Chemistry under the supervision of Prof. R.S. Srivastava.

## Udghosh '10: Our stars at the sports meet at IIT-Kanpur

Dhananjay Singh (B.Ph-III) and Vikas Nair (B.Ph-II) were the members of the winning cricket team. Dhananjay was the vice-captain of the team and was awarded the best batsman and player of the tournament.

Nitin Upadhyay (B.Ph-II) was the member of the football team.

Madhu (B.Ph-III), Swati (B.Ph-II) and Upasana (B.Ph-II) were members of the silver winning volleyball team.

Madhu Mishra (B.Ph-III) won silver medal in relay race.

Rohit Gupta (B.Ph-II) participated in hockey.

Harpreet Singh (B.Ph-I) participated in athletics.

## One of the Best at "BEST" in IIT-Bombay

Ms. Disha Mangalpara won the second prize in the competition organized by the DBT and Association of Biotechnology Led Enterprises on "Biotechnology Entrepreneurship Student Teams" "BEST 2010" organized at IIT-Bombay.



BHU vice-chancellor Professor D.P. Singh honoured Prof. J.K. Pandit, Dept. of Pharmaceutics, IIT-BHU on the 5th Sept. 2010 during celebration of Teachers Day, the birth anniversary of Dr. Sarvepalli Radhakrishnan, in a function at Malviya Bhawan. The programme was conducted by Dr. Sushant Kr. Srivastava.



Mr. Gitesh Gupta (B.Ph-III) conducted a series of workshop on Photoshop and Web Designing.



Teachers Day Vollyball Match



I wanted to take admission in such a place where the branch is also different and own some speciality, like this one.  
-Harpreet Singh

My living place is very beautiful but is very Varanasi is exciting. I must say Varanasi is exciting. In a double seated room, four people used to sleep, that's what hostel fun is about.  
-Himanshu Jaunival

My time here has been a period of developing the images of the people I have met and the places I have visited.  
- Abhishek Pandey

# Freshers First Experiences

I have a problem with the mess food but surely I will cope up with it. My hostel room is shared by an A.P. guy who is very good by heart.  
-Salinder Saurdru

मैं सोचा था शायद मैं अकेला लड़का हूँ जो कभी हाथ पांव तक नदी हलियाँ पर नहीं आऊँगा पर मैंने सोचा की हमारे कुछ दोस्तों को तो P1 तक कबना नहीं आता।  
- Ravi Roshan

My parents left me. I am learning to live by my own.  
-Sri Ram Vikas

Society Inauguration



The Vishwanath temple gives a peaceful mind to us when we visit it. It is enjoying to see a large no. of devotees in the temple.  
-Pachimala Rajesh



Prize Giving

I felt very happy and proud when I came to this university.  
-Srevan

From Department of Pharmaceutics

# The Honourable Professor

**Dr. J.K. Pandit** is an alumnus of the department of Pharmaceutics, I.T. BHU having obtained his B.Pharm, M.Pharm and Ph.D. degrees from this university. After a stint at G.S.V.M. Medical College, Kanpur, he joined his parent department in 1977. Thereafter, he was steadily promoted as Reader and Professor. Professor Pandit has wide academic and administrative experience.



He has successfully completed six research projects funded by the I.C.M.R., DST, AICTE and U.G.C and has more than a hundred research/review papers to his credit published in national and international peer reviewed journals. He also has contributed two book chapters on novel drug delivery systems. Dr. Pandit has been Head of the department of Pharmaceutics, I.T.BHU for 3 years and Director, college of Pharmacy, IFTM, Mooradalod for a short period. He has guided sixteen Ph.D. Scholars and more than fifty post graduate students, besides being the technical expert in faculty selection of UPPSC and universities. He has been invited by Beutham Science Publications and Marcel Dekker for writing books in which he is currently engaged. He has been honoured by the Indian Drug manufacture's Association with their prestigious research award.

B.H.U. Vice-Chancellor Prof. D.P. Singh honoured Prof. J.K. Pandit on his retirement on 5<sup>th</sup> Sept 2010 during Teachers Day celebration. (See Photo on coloured pages)

# Strengthening the Academic Industry Interface

**"It is amazing how much you can accomplish when it doesn't matter who gets the credit."**

- Harry S. Truman

When both academia and industry understand importance of research then why is there an absence of alliance between them?

It is a question still being pondered by great visionaries at both industrial and academic level. It is well accepted that neither universities are meant for goods production nor industries are meant for basic teaching. What is needed for perpetual development of technology is amalgamation of academic outlook with industrial experience. If these two sectors walk on a parallel road without joining hands, essence of both the institutions is lost because they fail to live up-to their purpose. It is only research activities which make them interdependent which have the potential to bring them together. If India as a country has to build up its science and technology that would empower it economically at the global level, there has to be a paradigm shift in concept of conducting research activities.

## Academic line of research

Conceiving of scientific and technological ideas and their implementation at university level has a social insight to strengthen the nation's ability to adapt to new technologies. Broad knowledge base present at university level facilitates free and unbiased exchange of ideas which often results in an environment where solution for a particular problem come from different and even unrelated disciplines. Such diversified contributions essential for successful innovation with social cause are beyond the scope of industrial environment.

Though extensive research is being continuously carried out in academic institutions, there are too basic in nature and lack commercial orientation. There may be several reasons behind it among which the requirement of huge expenses and technical knowhow at the large scale level are of prime importance. As a result researchers from academic institutions require sufficient time to acclimatize themselves to the industrial way of working and thinking during their transition to industries. At the same time the research outputs remain dormant for years together.

## Industrial line of research

Industries are well equipped and are much more disciplined and focused as far as research is concerned. As industries have become more dependent on innovation, new skills and technological prowess, research contributions have become increasingly critical to economic success. However, the success rate of industries in innovations with social cause seems to be too low when compared with the extent of money, time and energy spent.

*Cont. on next page*

The reasons being, lack of basic research and also inadequate trust to reap benefits from investment on academic research. Moreover, some even lack social awareness and far-sightedness, and are much more interested to make immediate profit from the current business. Finally, when the demand to innovate is at its climax, they end up paying hefty fees to consultancies.

### **Current research scenario in West**

Most of the funding for applied research at universities in America comes from federal agencies that want specific problems solved related to their missions. Industry funds some academic applied research directly via research contracts and also indirectly through support of university based research centers. In UK, there is more synergy between universities and industrial research where post graduates and research scholars take advantage of new technology and facilities at various industries.

### **Indian scenario of academic research**

A student, interested in pursuing his career in research, is usually advised to go to the western countries. This trend is reflected in the huge number of students attempting to qualify the international exams. This thought is supported by the fact that any research carried out abroad would enjoy the benefits and experience of both academics and industries. Presently, east has become a site for outsourcing of projects which are done without the basic knowledge of their objectives and output.

Hence there is trouble keeping the best talent in our country mostly because young people underestimate the prospects and opportunities available in India today. Students often complain that there is a detachment between what they learn at university classes and what they get to practice at their workplace. Even if there is difference, students need to be educated to an appropriate level. The course work and practical training which they receive during their university education is very important for their day-to-day research work. Even research funded by private or central agencies in an organized manner, has very less practical importance and no commercial value. The output of academic research seldom go beyond counts of research papers, patents, and royalty income, none of which directly correlates with the impact on society and economy.

### **Benefits of industry academic amalgamation**

Problems that industry faces cannot be solved by same level of thinking that created them. The kind of approach and confidence an academician has (especially an Indian), if channelized well, can solve any problem with minimum investment of money and resources. Commercial orientation of academic projects by industry involvement will make research more productive and fruitful. Project being pursued with no specific commercial application in mind may provide a platform for groundbreaking commercial innovation, provided if the vantage ground of industry is available.

It's high time that academicians and industries pull up their sleeves to join hands with confidence and shower prosperity to their citizens in the form of innovations.

**Sarvesh Khosla**  
**Subhashis Chakraborty**

# INDIAN PHARMACOPOEIA 2010

Hon'ble Union Health and Family Welfare Minister, Shri Ghulam Nabi Azad has released the Indian Pharmacopoeia 2010, 6<sup>th</sup> edition on 4<sup>th</sup> August, 2010 at Nirman Bhawan, New Delhi.

It supersedes the 2007 edition but any monograph of the earlier edition that does not figure in this edition continues to be official as stipulated in the Second Schedule of the Drugs and Cosmetics Act, 1940. This edition would be effective from 1st September, 2010. The Indian Pharmacopoeia 2010 is presented in three volumes. Volume I contains the Notices, Preface, the Structure of the IPC, Acknowledgments, Introduction, and the General Chapters. Volume II contains the General Notice, General Monographs on Dosage Forms, Monographs on drug substances, dosage forms and pharmaceutical aids (A to M). Volume III contains Monographs on drug substances, dosage forms and pharmaceutical aids (N to Z) followed by Monographs on Vaccines and Immunoserum for Human use, Herbs and Herbal products, Blood and blood-related products, Biotechnology products and veterinary products.

The scope of the Pharmacopoeia has been extended to include products of biotechnology, indigenous herbs and herbal products, veterinary vaccines and additional antiretroviral drugs and formulations, inclusive of commonly used fixed-dose combinations. Standards for new drugs and drugs used under National Health Programmes are added and the drugs as well as their formulations not in use now a days are omitted from this edition. The number of monographs of Excipients, Anticancer drugs, Herbal products and Antiretroviral drugs have been increased in this edition. oducts and Veterinary products. Commission (IPC)

## Indian scientists extract liver cancer drug from babool tree bark

A drug extracted from the bark of a commonly found tree has been found having the potential to cure liver cancer, according Indian researchers.

The experimental drug developed from the extract of *Acacia nilotica* tree, which is known as babool in local parlance, has shown efficacy against cancer cells when tested on rats. Researchers at Banaras Hindu University (BHU), in the Indian city of Allahabad, who conducted the study with funding from the Council of Scientific and Industrial Research (CSIR), New Delhi, claim that the babool bark extract drug could prevent hepatocellular carcinoma, also called liver cancer.

The babool tree has six compounds with strong potential to prevent and cure cancer and various other ailments. The chemical compounds isolated from the methanolic extract of the bark of *Acacia nilotica* or babool tree stimulates the body's anti-oxidant defence system and play an essential role in prevention and therapy of cancer, cardiovascular diseases, neuro-degenerative diseases and inflammation.

**Inayat hussain(B.Ph-II)**

# Higher Education in Pharmacy outside India

## Need for studying Abroad

Now days a number of multinational companies like *Hoechst, E Merck* and *Smith Kline Beecham, Daiichi Sankyo* are acquiring leading Indian companies and are collaborating even with government labs, thus offering many job options for qualified professionals. Most multinational pharmaceutical firms require skilled manpower to work in their research divisions located worldwide, hence to prepare the incumbent to cater to the current and future needs of advanced level aspects of pharmaceutical production and drug development, exposure to research methods studied worldwide is essential.

## OPPORTUNITIES

### USA

Graduates from an Indian university can appear for their GRE and TOEFL for entry into foreign universities to shape up their career. Offer of assistantship for undergraduate programmes magnetizes Indian students. Students in USA who clears FPGEE (Foreign Pharmacist Licensure Examination) and NAPLEX (North American Pharmacist Licensure Examination) can practice retail pharmacies also. In USA M. Pharm or M.S. plus Ph.D. is essential to enter industry or academic institution.

### Australia

University of the South Australia is the largest university. It offers degrees in pharmacy, physiotherapy, toxicology, occupational treatment therapy, etc.

### Ireland

Ireland is another ideal destination for students. Ireland is amongst the top five producers of pharmaceuticals and fine chemicals. Cost of the education is much less than in UK & US. Standard of universities in Ireland is similar to UK universities.

### Emerging areas

Professional level career opportunities in the field of pharmaceuticals are not limited upto teaching or research. Application of pharmacy includes in the area of *biophysics, bio-material improvement, biomechatronics, tissue engineering, nanotechnology*, etc. Improving existing pharmaceutical technologies and exploring new treatments strategies never before possible is what now. Software based intelligent healthcare solutions in the field of clinical research; computational chemistry etc will confer enormous benefits to physicians, surgeons, patients and overall healthcare management. Various research organizations (**Brainlab**: German based company provides software based solution for neurosurgery, orthopedics, ENT, spine, trauma, oncology and **Bioclinica**: Providing software based clinical trial management) are offering solutions which lead to explore new era of software based treatment.

**Submitted By:**  
**Rahul Tripathi**  
**Research Scholar**

## Recently Published /Accepted Research Articles

1. **Vuddanda, P.R., Chakraborty, S., Singh, S.**, (2010): Berberine: A potential phytochemical with multi spectrum therapeutic activities. **Expert Opinion On Investigational Drugs**. (Accepted)
2. **R. Tripathi, Shailesh V. Biradar, B. Mishra and Anant R. Paradkar**, "Study of Polymorphs of Progesterone by Novel Melt Sonocrystallization Technique: A Technical Note". **AAPS Pharm.Sci.Tech.**, 2010 (In Press)
3. **Shailendra Pandey, Radhey S Srivastava** "Synthesis and Characterization of Some Heterocyclic Schiff Bases: Potential Anticonvulsant Agents" **Medicinal Chemistry Research (springer)** (Article in Press), DOI: 10.1007/s00044-010-9441-z
4. **Ojha R, Sahu AN, Muruganandam A V, Singh GK, Krishnamurthy S.** (2010) Asparagus recemosus enhances memory and protects against amnesia in rodent models. *Brain and Cognition*. Oct;74(1).(2.547/2009)
5. **K.Kesavan, G.Nath, J.K. Pandit.** Sodium alginate based mucoadhesive system for gatifloxacin and its in vitro antibacterial activity. **Sci. Pharm.** (2010) In press.
6. **K. Kesavan , J. Balasubramaniam, Shri Kant, P.N. Singh, J.K. Pandit.** Newer Approaches for Optimal Bioavailability of Ocularly Delivered Drugs. **Current Drug delivery.** (2010) accepted.

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## Most -Cited and Awarded Articles

1. **Prabhat K. Shrivastava and Sushant K. Shrivastava** Stress Stability Studies and the Estimation of Lamotrigine in Pharmaceutical Formulation by Validated RP-HPLC Method Vol. 43 (2), Apr-Jun, 2009, Pp-156-161 (**ijper Awards for articles published in 'Indian Journal of Pharmaceutical Education and Research'** during the year January – December 2009)
2. **Hemalatha S, Wahi AK, Singh PN, Chansouria JP:** Hypoglycemic activity of Withania coagulans Dunal in streptozotocin induced diabetic rats. *J Ethnopharmacol*; 2004 Aug;93(2-3):261-4( this article was placed in **Top 10 articles by Bio Med Lib**)
3. **Hemalatha S, Wahi AK, Singh PN, Chansouria JP:** Hypolipidemic activity of aqueous extract of Withania coagulans Dunal in albino rats. *Phytother Res*; 2006 Jul;20(7):614-7( this article was placed in **Top 10 articles by Bio Med Lib**)
4. **Chakraborty, S.; Shukla, D.; Mishra, B.; Singh, S.** "Lipid - An emerging platform for oral delivery of drugs with poor bioavailability" *European Journal of Pharmaceutics and Biopharmaceutics*, Volume 73, Issue 1, September 2009, Pages 1-15(This article was placed in **Top 25** hottest articles by **European Journal of Pharmaceutics and Biopharmaceutics** from 9 months[ 8<sup>th</sup> place in jan-march 2009,9<sup>th</sup> place in april-june 2009, 4<sup>th</sup> place in oct- dec 2009.])