



The NGSMIPS Herald

NITTE

The Official news letter of the Nitte Gulabi Shetty Memorial
Institute of Pharmaceutical Sciences, Mangalore

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NGSMIPS Alumni Meet - December 20, 2010



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Contents

Editorial, Alumni Meet at NGSMIPS	2
Campus Buzz	3
Outlook of Patents in Pharma Industry, Part - I	5
Department Activities	6
Sports Day Photographs	7

VISION

To build a humane society through excellence in education and health care.

MISSION

To develop Nitte University as a centre of excellence, imparting quality education, generating competent, skilled manpower to face the scientific and social challenges with a high degree of credibility, integrity, ethical standards and social concern.

'For Private Circulation Only'

From the Editor's desk

“Ring out the old, ring in the new,
Ring, happy bells, across the snow;
The year is going, let him go”.



And so quoted the renowned Victorian poet, Lord Alfred Tennyson. A year has gone by and we are now on the threshold of another. For the institution, the year 2010 was not entirely dull but was marked by some memorable events. We had the launch of the NGSMIPS Herald itself, two national level workshops, introduction of an additional branch of Pharmacy Practice in M.Pharm to name a few, thanks to the interest shown by the Nitte University. There has also been a spurt in research activity from students and faculty including presenting papers at national and international conferences. A fitting end to the year was the grand and colourful reunion of our alumni complete with fireworks, cultural extravaganza and dinner on that magical night of December 20. The New Year without doubt may produce similar such events. Aspirations are aplenty, resolutions are made to be broken, apprehensions of uncertain future may remain, still we march on relentlessly to realise our dreams.

In the global scene, the next few years promise a sea change in the Drug Industry since those who hold the public purse strings will now call the shots with respect to new drug development, clinical trial design, conditions for market approval, and patient access to new therapies. A recent survey of new drugs in development in Europe reveals that there is a positive transition towards better prospects in the approval of medicines that promise to improve the quality of life, and the discoveries linked to mapping of the human genome may finally be bearing fruit in the form of commercially viable drug candidates. New classes of HIV-inspired protein inhibitors are set to increase the cure rate in Hepatitis C by 50 percent. The vaccine pipeline heralds the first-ever prevention against such widely varied threats as malaria, MRSA bacteria, and anthrax. And in cancer a few new treatments have hit the bull's-eye on new targets and pathways, including previously untreatable triple-negative breast cancer and advanced melanoma.

On a final note, on behalf of the Editorial board I would like to wish everyone a happy and prosperous New Year and may you achieve many of your goals before this year ends.

Marina Koland, Executive Editor



Alumni Meet at NGSMIPS

The Institution organized a reunion for its alumni on December 20, 2010 which included an entertainment filled evening concluding with a sumptuous dinner. The function was coordinated by the NGSM Institute of Pharmaceutical Sciences Alumni Association (NIPSAA). Over 200 alumni, from India and abroad attended. The venue for this event was the sprawling grounds in the college campus itself which was spruced up for the evening complete with a tinkling fountain in the centre and colourful lighting all around.

The Guest of Honour of the evening, Dr. M. Shantharam Shetty, Vice Chancellor, Nitte University congratulated the Institution for organizing the event. A few of our distinguished alumni including Mr. Sanjay Patel, Senior Director, CDM and Head, Operations, Quintiles recalled their memories as students of this institution as well as their experiences in the pharmaceutical industry. The entertainment program included performances by students as well as alumni.



Campus Buzz

New Post Graduate branch of Pharmacy Practice Inaugurated

The NGSM Institute of Pharmaceutical Sciences, Deralakatte, a constituent college of Nitte University inaugurated its Post Graduate Department of Pharmacy Practice on November 4, 2010, at the K.S. Hegde Charitable Hospital, Deralakatte. Pharmacy Practice is a clinical and patient oriented off shoot of the Pharmacy Profession which is rapidly gaining importance in India where pharmacy education was hitherto industry oriented. This area focuses on patient education and counseling; ward round participation, drug and poison information service, drug interaction studies, adverse drug reaction monitoring and continuing education programmes for the hospital and community pharmacists. The Institution is the first pharmacy college in Dakshina Kannada to offer an M.Pharm course in Pharmacy Practice and the department is headed by Mr. Sreedharan, Assist. Professor.



Dr. M. Shantharam Shetty inaugurates the Department of Pharmacy Practice at the K.S. Hegde Charitable Hospital, Deralakatte in the presence of Sri N. V. Hegde and other dignitaries

Dr. M. Shantharam Shetty, Vice Chancellor, Nitte University was the chief guest at the inaugural ceremony which took place at the premises of the Medical Sciences Complex, K.S. Hegde Charitable Hospital, Deralakatte. The ceremony was presided over by Sri. N. Vinaya Hegde, Chancellor, Nitte University. Dr. Arunachalam Kumar, Dean of K.S. Hegde Medical Academy was the Guest of Honour. Dr. Satheesh Bhandary, Vice Dean, KSHEMA; Dr. A.K. Sampath Kumar, Medical Superintendent, KSHEMA, Dr. H.V. Sudhaker Nayak, Registrar, Nitte University and Dr. A.P. Krishna, Deputy Registrar (Evaluation), Nitte University were also present. Dr. Arunachalam Kumar stressed the contribution that clinical pharmacists can make towards rational drug use in patient care.

Dr. Shantharam Shetty emphasized the need for patient education regarding drug use and the role of the clinical pharmacist towards achieving better patient compliance. Sri N.V. Hegde spoke on the benefits of collaboration between health care professionals and pharmacists towards better patient care and the necessity of increasing awareness among patients and physicians on proper drug use.

The department is well equipped with a good library, computer facilities complete with drug information software such as the DRUG-REAX®, for accurate interpretation of drug interactions helping clinicians and health care professionals in improved patient care.



Inauguration of Student Council for the academic year 2010-2011

The student body of NGSMIPS has now a new leader and council to represent them. In a glittering function held at the K.S.Hegde Auditorium on November 22, 2010, the former student council members handed over their badges and responsibilities to the incumbents. Dr. Arunachalam Kumar, Dean, KSHEMA was the Chief Guest who made quite an impression with the students with his speech and the function was presided over by the Director of PG studies and Research, Dr. D. Satyanarayana and the Principal, Dr. C.S. Shastry. The new Student Council President is Mr. Aditya Rao, III Year B Pharm and his team members are:



The members of the New Student Council

Vice President	Piyush Srivastav (III Yr. B.Pharm)
Secretary	Melanie D'souza, (II Yr. B.Pharm)
Sports Secretaries	Jeevan Hegde (III Yr. B.Pharm), Manohar Naik (III Yr. B.Pharm), Anusha Ramdas (II Yr. B.Pharm)
Cultural Secretaries	Vishal Patil (III Yr. B.Pharm), Bansari Patel (II Yr. B.Pharm), Subhash Nayak (II Yr. B.Pharm)
Literary Secretaries	Stephanie Ammanna (II Yr. B.Pharm), Vivek Ghate (III Yr. B.Pharm), Rohan Patel (III Yr. B.Pharm)
Student Editors	Pradeep Malladi (Final Yr. B.Pharm), Vivek Ghate (III Yr. B.Pharm), Aseela K. Aliar (Final Yr. B.Pharm), Annette D'souza (III Yr. B.Pharm), Stephanie Ammanna (II Yr. B.Pharm), Mani Prashant (II Yr. B.Pharm), Shanon Ben (II Yr. B.Pharm)
NSS	Bharath (I Yr. M.Pharm), Nirmala Pais (I Yr. M.Pharm)
Class Representatives	Gaurang Patel (I Year B.Pharm), Anant Prabhu (II Yr. B.Pharm), Ankit Tripathi (III Yr. B.Pharm), Sahana Shetty (Final Yr. B.Pharm), Prathyusha and Santy Koshy (I Yr. M.Pharm)

After the ceremony, the audience was enthralled for the rest of the evening with a series of performances staged by students, culminating in a fashion show.

Sports Meet at Mangala Stadium

The annual Sports Meet of NGSMIPS was held at Mangala Stadium, Mangalore on November 26, 2010. The meet was formally declared open by Dr. D. Satyanarayana, Director of PG Studies and Research in the presence of faculty and students. A number of track and field events were conducted in which many students participated with much enthusiasm.

Guest Lectures

A lecture on Nanomedicine was arranged on 17th October, 2010 at the Vimshathi Bhavan, A.B Shetty Memorial Institute of Dental Sciences, Derelakatte. The speaker was Dr. P.D.Gupta, Retired Director Grade Scientist, CCMB, Hyderabad who elaborated on the commercial applications of nanomedicine in the Pharmaceutical Industry as research tools including new therapies and in vivo imaging.

A lecture on SOAP (Subjective, Objective, Assessment, and Plan) Analysis and Patient Counseling was delivered by Mr.Rajesh V., Lecturer, Department of Pharmacy Practice, MCOPS, Manipal This lecture highlighted the various steps involved in the patient counseling process and analyzing the patient's case sheet and documenting it in SOAP format.



Mr. Rajesh V. presenting his lecture

Appointments

Mr. Amit Patel and Mr. Atanu Bhattacharjee have been appointed as Lecturers and Mr. Juno J. Joel as Senior Lecturer in the Departments of Pharmaceutics, Pharmacognosy and Pharmacy Practice respectively with effect from October 2010.

POSTER PRESENTATION AT INTERNATIONAL CONFERENCE



Dr. Prabhakara Prabhu at the FIP Pharmaceutical Sciences World Congress 2010, New Orleans, USA.

TOPPERS IN B. PHARM, 2009-2010



Meghana Rao
I B. Pharm
Nitte University



Vivek Ghate M.
II B. Pharm
Rajiv Gandhi University
of Health Sciences



Shakila
III B. Pharm
Rajiv Gandhi University
of Health Sciences



Sharal Janice Rodrigues
IV B. Pharm
Rajiv Gandhi University
of Health Sciences

OUTLOOK OF PATENTS IN PHARMA INDUSTRY, PART-I

By: Neogi Rishita Hiranmoy

II Yr. M.Pharm, Dept. of Pharmaceutics

PROBLEMS OF PHARMACEUTICAL PATENTS

The pharmaceutical industry is one of three technology-based industries in which the patent virtually equals the product. The others are the chemical industry (including agricultural chemicals) and the biotechnology industry, whose innovations span the spectrum from engineered plant varieties to human pharmaceutical therapies. These three industries are much different than other patenting industries. Most importantly, unlike industries which produce products requiring expensive and complex manufacturing infrastructures, the patented products of pharmaceutical companies can be easily and cheaply replicated by copiers with little capital investment. Since capital investment in the pharmaceutical industry disproportionately is directed to laboratory research and clinical trials rather than the manufacture of the final product, patent exclusivity is the only effective way to protect and receive a return on that investment.

The pharmaceutical industry has an important characteristic that sets it apart from other industries that rely on patent protection. In many technology-based industries it is possible to keep inventions a secret until the moment they are marketed. This enables inventors to delay patent filings until the last possible moment and, therefore, to maximize the effect of the 20 year patent term which runs from filing of the patent application. The culture of medical research, however, emphasizes very early disclosure of inventions, usually long before a resulting product can be placed on the market. This is because scientists working in the field of human pathology have an obligation to share their findings as soon as possible with their peers so that those peers will be able to benefit from the new knowledge in their own research. And, unlike industries such as computers and software, the pharmaceutical industry is heavily regulated by government agencies to assure the safety and efficacy of products which will be sold to consumers. In the United States, the Food and Drug Administration performs this function. Much of the investment in new drugs is in the clinical trials which are necessary to satisfy safety and efficacy regulators. The tolerance for a “buyer beware” philosophy in the pharmaceutical industry is extremely low compared to other industries.

The lengthy time period between patent filing and placing a product on the market means that pharmaceutical manufacturers receive far shorter periods of patent exclusivity than is the case for other patent dependent industries. This problem has been addressed in legislation in the United States and elsewhere which permits a patent applicant to apply for extensions of patent term to compensate for the inability to market inventions due to safety and efficacy regulation. However, the time periods permitted for such extensions do not equal the time lost in ability to market. In the United States patents can be extended only for half the time period consumed

by the regulatory approval process, and for a maximum effective patent term of fourteen years.² Further, the legislation restricts the exclusive right of use which normally accompanies the patent grant by permitting generic competitors to use the product for testing and developing the generic alternative while the patent is still in effect. This permits a generic product to be marketed virtually the moment the patent expires.

While the contribution of the patent-based pharmaceutical business to job creation and the economy is impressive, the inventions of pharmaceutical researchers have a dimension difficult to quantify in economic terms – their impact in extending life and alleviating human suffering. In 2001 the pharmaceutical industry pipeline contained 402 new cancer medicines, 123 new treatments for heart disease and stroke, 83 new AIDS treatments and 176 new medicines for neurological diseases. These statistics are particularly sobering in light of the current debate over whether patents covering HIV drugs should be respected. None of the new drugs in the pipeline, much less the 74 medicines that already have caused deaths from AIDS to plummet in the United States, would have come into existence without the patent incentive and the prospect of a return on investment provided by that incentive.

This is not to dismiss the fact that many patients in the world cannot pay for these drugs and do not have access to them. However, this is not the result of the patent system. It is the result of lack of a source of funding for the purchase of drugs for those currently too poor to buy them themselves.

Effective use of the patent system in the 20th Century gave rise to commercial enterprises that advanced the progress of medical science beyond anything known in prior history. While public funding of the training of scientists and basic research vastly expanded the understanding of human pathology as the century progressed, it was the profit incentive operating through pharmaceutical companies accountable to investor shareholders, which provided desperately needed new therapies to patients. By the decade of the 1980s patent dependent pharmaceutical companies developed more than 92% of all new drugs.

REFERENCES

1. Thomas, Daniel (2003), *Patentability problems in medical technology*, IIC, vol. 34.No. 8 p. 847-994.
2. Bernstein J. (1999), ‘*Concomitant polymorphs*’, *Angew. Chem. Int. Ed* 38, p. 3440- 3461.
3. Bale Jr., Harvey E., ‘*Patent Protection and Pharmaceutical Innovation*,’ *New York University Journal of International Law and Politics* (1996-97), 95.

DEPARTMENT ACTIVITIES

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

Research Publications

DR. K. ISHWAR BHAT, Professor

Synthesis and biological studies of some Quinoline incorporated Pyrazoles. *Indian Journal of Heterocyclic Chemistry* 2010; 20: 99-100

DR. JANE JACOB, Assoc. Professor

Estimation of clopidogrel in bulk and pharmaceutical formulations. *Asian J. Research Chem* 2010; 3(4): 1086-1089

Papers Presented at Conferences

Dr. K. Ishwar Bhat presented orally a research paper entitled, "Cytotoxicity studies and Synthesis of Pyrazoline and Pyrimidine bearing thiophenes via common intermediate chalcones" at the 29th Annual conference of Indian Council of Chemists held at the Department of Chemistry, Punjab University, Chandigarh on 19th to 21st December, 2010.

Dr. Jane Jacob presented a poster on the research paper entitled, "Analytical methods for the estimation of Paliperidone in bulk and dosage form" at the 15th APTI Annual National Conversation 2010 on November 2nd and 3rd 2010, held at Shilpakalavedika, Hyderabad.

Dr. Prerana Shetty, Assist. Professor presented a poster on the research paper entitled, "Effect of alcoholic extract of *Saraca india* on estrogenic activity" at the 15th APTI Annual National Conversation 2010 on November 2nd and 3rd 2010, held at Shilpakalavedika, Hyderabad.

Mr. Abhishek Kumar, Lecturer gave an oral presentation on the research paper entitled, "Chemical modifications on Benzopyrones for their antibacterial and antidiabetic activity" at the 29th Annual Conference of Indian Council of Chemists held at Department of Chemistry, Punjab University, Chandigarh on 19th to 21st December, 2010.

Ms. Jainey James, Lecturer presented a research paper by way of poster entitled, "Utility of thiophenes in the synthesis of novel Pyrimidine as antitumor, analgesic and anti-inflammatory agents" at the 62nd Indian Pharmaceutical Congress 2010, held at Manipal University, Manipal on 19th to 21st December, 2010.

DEPARTMENT OF PHARMACEUTICS

Research Publications

MRS. MARINA KOLAND, Assoc. Professor

Mucoadhesive films of Losartan Potassium for buccal delivery. *Indian J Pharm Educ Res.* 2010; 44 (4): 315-323.

DR. PRABHAKARA PRABHU, Assist. Professor

1. Preparation and evaluation of liposomes of brimonidine tartrate as an ocular drug delivery system. *Int J Res Pharm Sci*, 2010; 1(4); 502-508.

2. Preparation and evaluation of nano vesicles of brimonidine tartrate as an ocular drug delivery system. *J Young Pharm*, 2010, 2(4):356-361.
3. Preparation and Evaluation of Niosomes of Brimonidine Tartrate as an Ocular Drug Delivery System. *J Pharm Res Health Care*, 2010,2(4):293-301.

Papers Presented at Conferences

Dr. Prabhakara Prabhu, presented a paper as poster entitled "Development and Evaluation of nano size coated liposomes of methotrexate for targeted delivery" at FIP Pharmaceutical Sciences World Congress 2010 in Association with AAPS Annual Meeting And Exposition, 2010, New Orleans, USA, November 14th to 18th. The travel grant for presenting the paper was sanctioned by the ICMR, New Delhi and RGUHS, Bangalore.

Student Achievements

Mr Satweek Mehtha, Second M. Pharm, presented a paper as poster entitled "Sustained Release *in situ* gels of fluconazole: Development, optimization and *in vitro*- *in vivo* evaluation" at the FIP Pharmaceutical Sciences World Congress 2010, in Association with AAPS Annual Meeting And Exposition, 2010, New Orleans, USA, November 14th to 18th

The following students presented research papers as poster presentations at the 62nd IPC held at MCOPS, Manipal on December 17-19, 2010.

- **Mr. Maithil R Patel**, Second year M. Pharm, on "Formulation and Development of Environment sensitive Nasal gel of Rizatriptan Benzoate". The paper was co authored by Mrs. Nisha Girish Shetty, Senior Lecturer.
- **Ms. Akshaya U Bhandarkar**, Second year M. Pharm, on "Investigation on release profile of Chitosan based Polyelectrolyte complexes using an antihypertensive agent" The paper was co authored by Dr. Narayana Charyulu, Professor
- **Mr. Muhammed Jaseer V.K.**, Second year M. Pharm, on "Transfersomes - A Novel Vesicular Carrier for Enhanced Delivery: Development, Characterizations and *in vitro* Performance of acyclovir". The paper was co authored by Dr. Prabhakara Prabhu, Assoc. Professor.
- **Ms. S. Prasanthi**, First year M. Pharm, on "Pluronic F127 as *in situ* gelling vehicle for buccal drug delivery system of Antifungal drug". The paper was co authored by Mr. Harish N.M., Lecturer
- **Ms. Annu Kumari**, First year M. Pharm, on "Buoyant oil entrapped Calcium pectinate gel beads of Famotidine". The paper was co authored by Mrs. Marina Koland, Assoc. Professor.

- **Ms. Vishi Khatrii**, First year M. Pharm, on “Formulation and *in vitro* comparative evaluation of maize starch and papaya pulp powder as disintegrating agent” The paper was co authored by Dr. Prabhakara Prabhu, Assoc. Professor.
- **Mr. Sakhia Darshan P**, First year M. Pharm, on “Formulation and evaluation of insitu gels containing Clotrimazole” The paper was co authored by Mr. Harish N.M., Lecturer

DEPARTMENT OF PHARMACOLOGY

Research Publications

DR. C.S SHASTRY, Professor

Analgesic and anti-inflammatory activity studies of some novel benzothiazole schiff's bases on experimental rats. *Pharmacology Online* 2010; 3: 229-234

DR. PRASHANTH SHETTY, Professor

Genotoxic studies of *Memecylon umbellatum* leaves. *Int J Pharm & Health Sci* 2010; 1(2): 45-49

MR. HIMANSHU JOSHI, Lecturer

Analgesic activity of the roots of *Memecylon umbellatom* *Burm. International Research Journal of Pharmacy* 2010; 1(1): 395-400

DEPARTMENT OF PHARMACOGNOSY

Research Publications

MS. DIVYA JYOTHY, Lecturer

1. Optimization of microwave assisted extraction of withanolides from roots of Ashwagandha and its comparison with conventional extraction method. *International Journal of Pharmacy and Pharmaceutical Sciences* 2010; 2(4): 46-50.
2. Optimization of microwave assisted extraction of withanolides from roots of Ashwagandha. *International Journal of Comprehensive Pharmacy*. 2010; 1(4): 1-5.



SPORTS DAY, NOVEMBER 26, 2010



Student Council Inauguration

November 22, 2010



Book Post