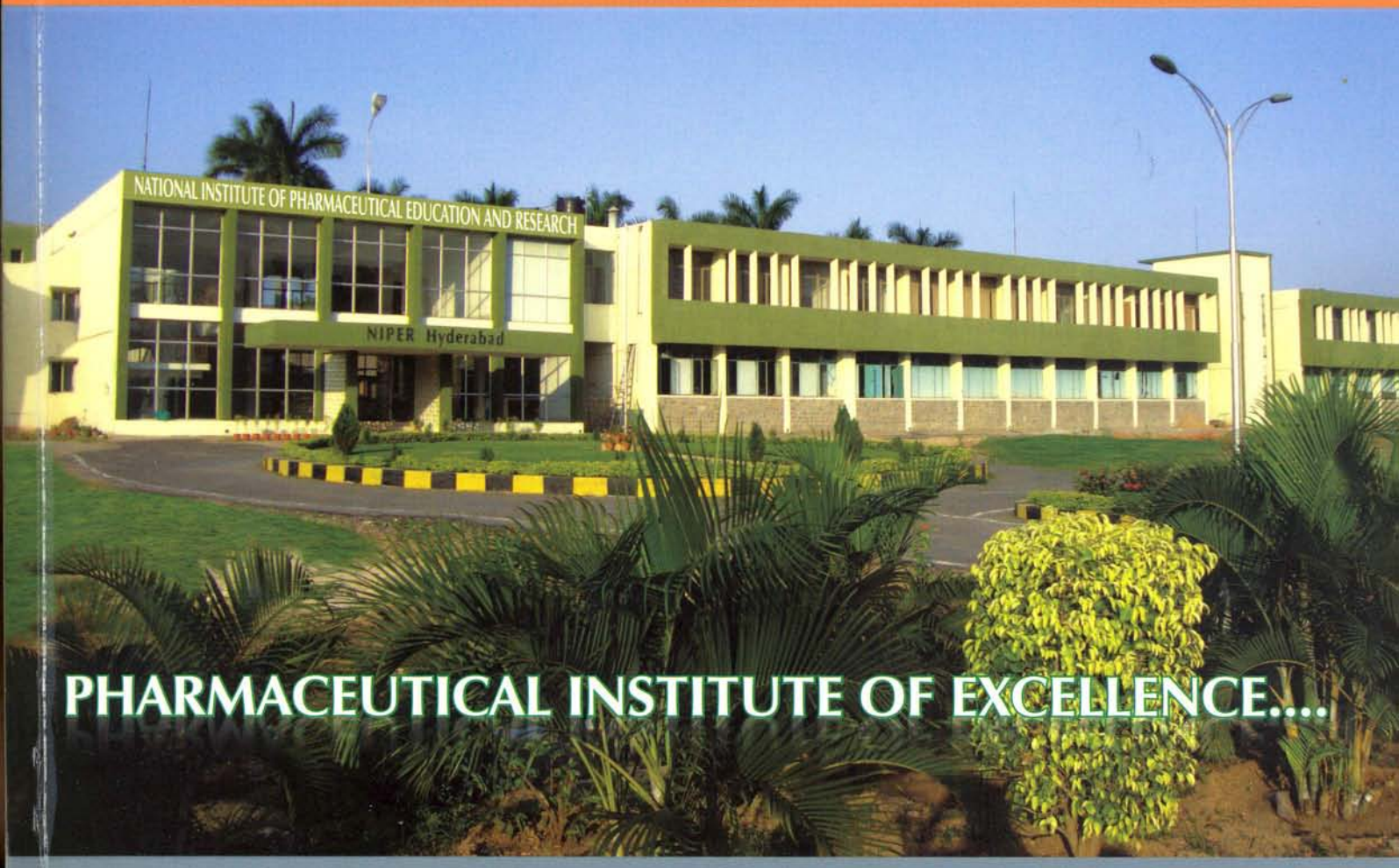
वार्षिक प्रतिवेदन
ANNUAL REPORT
NIPER-HYDERABAD

Academic Year 2010-2011



PHARMACEUTICAL INSTITUTE OF EXCELLENCE....

HYDERABAD

राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCH

(Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Govt of India)

Balanagar, Hyderabad 500 037, A.P., INDIA Ph: +91-40-23073741, Fax: +91-40-23073751,

Email: projectdirector@niperhyd.ac.in Website: www.niperhyd.ac.in

NIPER-HYDERABAD

Our Destination: creation of future leaders in pharma sector. We are initiating ambitious plans for production of experts with the energy and determination in the field of pharmaceuticals.

Dr. J. S. Yadav, Director, IICT
(Mentor Institute for NIPER-Hyderabad)

Dr. Ahmed Kamal
Outstanding Scientist, IICT &
Project Director, NIPER-Hyderabad

Prof. N. Satyanarayana
Registrar, NIPER-Hyderabad

Dr R. Srinivas,
Chief Scientist-IICT &
Course Coordinator,
NIPER-Hyderabad

Dr S. Ramakrishna
Principal Scientist-IICT &
Course Coordinator,
NIPER-Hyderabad

Project Director, Registrar, Course coordinators, and Faculty of NIPER-Hyderabad

A Message from
The Director, Indian Institute of Chemical Technology

I am pleased that National Institute of Pharmaceutical Education and Research (NIPER-Hyderabad) has successfully completed 4 years of its inception. The first batch (2009), second batch (2010) & 3rd batch (2011) of the M.S. (Pharm.) course students in four (Medicinal Chemistry, Pharmaceutical Analysis, Pharmacology & Toxicology and Pharmaceutics) disciplines have completed the M.S degree and most of them have joined various Research institutions and Pharmaceutical companies. The new M.S course in Pharmaceutics is started in the year 2010. The 4th batch students are working for their research projects largely at its mentor institute. The institute is in the process of getting established by providing the necessary infrastructure for its growth particularly to take up the research activities in advanced areas of pharmaceutical sciences and initiated the doctoral programmes in this year.

I am happy to know, NIPER is going to start a National Centre for Bulk Drug Research and Development to serve the pharmaceutical industry. IICT as its mentor institute is offering its full support in the growth and development of this institute more precisely in the advanced practical training, research project works of the students through its scientific faculty and IICT supporting the NIPER for conducting various workshops and seminars in drug discovery.

I am happy to extend my support and guidance to see that this institute flourishes in advance pharmaceutical science education and research in the coming years.

My best wishes for NIPER-Hyderabad in its future endeavours.

Dr. J.S. Yadav,
Director
Indian Institute of Chemical Technology

yadav@iict.res.in
Phone : 91-40-27193030

HYDERABAD

A Message from
The Project Director, NIPER-Hyderabad

NIPER-Hyderabad has successfully completed four years of its functioning after its establishment in 2007. It is my pleasure to present to you the progress report of NIPER-Hyderabad for the period of 2010-11.

The 1st, 2nd and 3rd batch students of the M.S. (Pharm) course have come out after their successful completion of the course and fourth batch of students are working on their projects while the fifth batch students have started their first semester course.

The vision of this institute is to be a vital source of excellence in achieving targets relating to Human Resource Development, Research and Development in the field of pharmaceutical sciences and allied fields and to be a strong platform for collaborative support to the Pharmaceutical industry. We are steadily progressing on this path as reflected from the number of students that have joined the pharma industries and pursuing research activity abroad as well at the national institutes in the country. The research labs are being developed in this institute and the faculty has been strengthened to provide the best education in pharmaceutical sciences. This institute is presently being mentored by Indian Institute of Chemical Technology (IICT), Hyderabad and however, the facilities are being created at this institute for it to become self reliant.

The Department of Pharmaceuticals under the Ministry of Chemicals & Fertilizers has been extremely helpful in the development of this institute.

I am thankful to my colleagues both from the scientific as well as administrative side and students for their cooperation.

It is my belief that this institute will grow to reach greater heights in the years to come.

Dr. Ahmed Kamal
Project Director
NIPER-Hyderabad

projectdirector@niperhyd.ac.in
Phone : 040-23073741

HYDERABAD

A Message from
The Registrar, NIPER-Hyderabad

It is a great pleasure that National Institute of Pharmaceutical Education and Research Hyderabad, is releasing its Annual Report 2011 for the academic year 2010-11. I am sure that within a period of four years NIPER Hyderabad has progressed well in academic and research fronts.

In the year 2010-11, NIPER-H has started Pharmaceutics, a new course in M.S.Pharm with an intake of 15 students with total strength of 131 (75+56). Ph.D program in this institute commenced from academic year 2011-12 in 3 disciplines with an intake of 3 students each. NIPER faculty has conducted good no. of Conferences / Workshops in collaboration with IICT, Pharma industries and other research institutes. NIPER-H was also in forefront in placement activities. I am sure that NIPER Hyderabad continues to progress with pace to quality education and emerge as a role model institute in India and around the globe. Young and well qualified faculty have been inducted into NIPER to train and fine tune the students. Under the leadership of Dr. J. S. Yadav, Director, IICT and Dr. Ahmed Kamal, Project Director, NIPER Hyderabad will flourish and fulfil the motto of its establishment.

N. Satyanarayana

Prof. N.Satyanarayana,
Registrar
NIPER-Hyderabad

registrar@niperhyd.ac.in
Phone : 040 23073740

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About NIPER Hyderabad

National Institute of Pharmaceutical Education and Research (NIPER) is a National level Institute in Pharmaceutical Sciences with proclaimed objectives of becoming centre of excellence for advance science and research in pharmaceutical sciences. Previously, there was only one NIPER at Mohali. Later, the Govt. of India (Ministry of Chemicals & Fertilizers) has started 6 such institutes under the aegis of this Ministry. NIPER-Hyderabad is one among them which was started about 4 years back. This institute offers a 2 year Post Graduate degree course; MS (Pharm) in 4 disciplines (Medicinal Chemistry, Pharmacology & Toxicology, Pharmaceutical Analysis and Pharmaceutics) with a total intake of 75 students. Ph.D programme in this institute is going to commence from academic year 2011-12 in 3 disciplines (Medicinal Chemistry, Pharmacology & Toxicology and Pharmaceutics) with an intake of 3 students each. It is located at the former R&D Centre of IDPL, Balangar, Hyderabad. Presently, Indian Institute of Chemical Technology (IICT), Hyderabad a premier CSIR Research Laboratories, is the Mentor Institute for NIPER, Hyderabad.

NIPER-Hyderabad puts special efforts to update the knowledge of students and make them to expose and experience with various advanced techniques which are essential for Drug Discovery Research. In this regard, NIPER itself is procuring the requisite lab equipments besides the facilities extended by IICT (Mentor Institute). Many of the NIPER students do dissertation work in National Research institutes and reputed Pharma industries. NIPER-Hyderabad conducts several National / International Seminars / Workshops with a regular time interval. This will enable the NIPER students to get an exposure to the advanced research in a Pharmaceutical Sciences. NIPER also invites experts from various industries and academia to deliver lectures on special topics. Besides above, NIPER takes special care to develop the students' in communication skills / personality development / aptitude skills. NIPER-Hyderabad is in forefront in placement activities with about 75% in the academic year 2010. It maintains about 1:8 faculty student ratio. Some of the faculty members have received prestigious awards like OPPI Young Scientist Award from Organization of Pharmaceutical Procedures of India for 2010 as well as 2011 and IDMA Young Pharma Analyst Award from Indian Drugs & Manufacturers Association (IDMA) for the year 2011.

NIPER-Hyderabad is being created a National Centre for Bulk Drugs to cater to the needs of pharmaceutical academia and the industry. Very soon, it is likely to become the Centre of Excellence for Advance Studies and Research in Pharmaceutical Sciences. This institute will play an important role in the Human Resource Development for the ever growing Indian Pharmaceutical industry, which has been in the forefront of India's science based industries with wide ranging capabilities in this important field of drug manufacture.

Objectives of NIPER Hyderabad

- Enhancing creativity, motivation & drive and inculcating professionalism
- Bringing synergy between academic, R&D, technology and industry through training and exposure for such environment.
- Bridging collaborations between pharmacy, biotechnology, information technologies and preparing for meeting global challenges.
- Preparing professionals to suit to the need of pharmaceutical industry
- Developing and practicing e-learning for the professionals and training for teachers, researchers, regulators in the respective fields
- Creating a world class institute of teaching and research in the field of Pharmaceutical Sciences
- Expand research activities in new avenues and emerging segments
- Explore national and international collaboration in pharmaceutical sciences

Citizen's/Clients' Charter

(i) Vision and Mission Statement:

VISION:

To achieve a position of one of the leading global institutions in the field of higher learning and research in Pharmaceutical Sciences

MISSION:

To strive towards excellence in the field of higher learning and research in Pharmaceutical Sciences and to be one of the principal sources of professional manpower in the field, for strengthening the Indian Pharma industry in providing medicines at affordable price by using latest aspects of Science & Technology.

(ii) Details of business transacted by the organization:

1. To provide quality education and advanced knowledge in the field of Pharmaceutical Sciences, through the 2 year M.S (Pharm.) course, with a student intake of 75 for each year;
2. To conduct Ph.D programme in the disciplines of the institute.

(iii) Details of customers/clients:

Persons with eligible qualification from a recognized university admitted as students at the NIPER:

1) a) For the M.S (Pharm.) course : B. Pharm /M.Sc (organic Chemistry) for the discipline of Medicinal Chemistry (b) B. Pharm / M.Sc Organioc Chemistry / Analytical chemistry, for the discipline of Pharmaceutical Analysis / (c) B. Pharm / B.V.Sc/ MBBS for Pharmacology & Toxicology (d) B. Pharm for Pharmaceutics
2) Post graduates in Pharmacy from any recognized university/NIPERs for the Ph D programme.

Provisions for reservation shall be made as per Government of India rules in force.

(iv) Statement of services provided to each citizen group /client group separately

S.No.	Client Group	Services provided to the Group
1.	**Students of M.S (Pharm.)**	Teaching at the class rooms with talented faculty of the concerned subjects as per the syllabus, semester-wise, as prescribed by the Department under the NIPERs Act. Conducting practicals in the labs with the equipments and the consumables required for the practicals work in the concerned subjects as per the syllabus, semester-wise Providing Library with books and journals in the concerned subjects. Conducting Student Seminars, Conferences, Personality Development and other extracurricular activities. Conducting semester-wise examinations and announcement of semester-wise results. Award of Degrees to the students who fulfill the criteria for award of the degree; Make payment of stipend of ₹.8000 per month, based on the attendance certificate from the course co-ordinator; Partial Refund of tuition fee for the selected students of the economically weaker sections, semester-wise, based on the GPA score of 6.0 and above
2	**Ph D Programme**	Payment of stipend of ₹.23,400/- per month, subject to fulfilment of the requirements Providing faculty as guides, who train the students in the advances of research and guide the students for research studies in the specialized areas. Conduct examination at the end of the course Award of degree to the students who fulfill the requirements for the award of the Degree.

(v) Details of Grievances Redress Mechanism and how to access the same

The Student Welfare Officer shall meet the students on a specified day every week at a fixed time to be intimated in advance, to clear the grievances, if any. A Grievance Box is kept in the Academic cell and grievances received through that box are given to the Student Welfare officer for action at the weekly meeting.

(vi) Expectations from the Clients:

A: Students of M.S (Pharm.):

- Remit the semester tuition fee promptly into the Bank account of the NIPER, every semester
- Fulfill the requirement of GPA of 6.0 and above if the student is one who is selected for the benefit of the partial waiver of tuition fee in respect of the economically weaker sections.
- Fulfill the punctuality and attendance requirement as prescribed from time to time.
- Fulfill the requirement of courtesy, decorum and discipline of studentship.
- Fulfill the requirement of at least the minimum GPA for each semester and improve as per guidance by the faculty.
- Fulfill the requirement of overall GPA at the end of the course, to be eligible for the award of the degree.

B: Students of Ph D programme

As may be prescribed from time to time

Administrative and Technical Staff during 2010-11
(Useful Telephone Numbers NIPER-Hyderabad)

1.	Project Director Office	040 – 23073741/51	projectdirector@niperhyd.ac.in
2.	Registrar Office	040 - 23073740	registrar@niperhyd.ac.in
3.	Administrative Office	040 - 23074750	
4.	Examination Cell	040 - 23423749 (Ext. 2016)	coe@niperhyd.ac.in
5.	Placement Cell	040 – 23073749 (Ext. 2011)	placementcell@niperhyd.ac.in
6.	Laboratory Facilitation Manager	040 - 23423749 (Ext. 2020)	
7.	Stores and Purchase	040 - 23423749 (Ext. 2018)	
8.	Hostel	040 - 20000358	

ADMINISTERIAL STAFF

S.No	Name	Designation	Mobile	e-mail
1	Shri M.S.N. Murthy	Administrative Officer	9701005604	murthy@niperhyd.ac.in
2	Mrs. M. Swapna Devi	Secretarial Assistant	9490931082	swapna@niperhyd.ac.in
3	Mr. M. Monohara	Assistant (Admin)	9493979623	monohara@niperhyd.ac.in
4	Mr. Rajesh Kumar Jha	Assistant (Admin)	8897299878	rajeshjha@niperhyd.ac.in
5	Mrs. T. Sunitha	Assistant (Admn), Accounts	9849792700	sunitha@niperhyd.ac.in
6	Mrs. A. Kalpana	Assistant (Admn), S & P	9676207521	kalpana@niperhyd.ac.in
7	Mrs. P. Ramadevi	Assistant (Admn)	9491340949	ramadevi@niperhyd.ac.in
8	Ms. A. Anupa	Office Assistant (Admn.)	9848350628	anupa@niperhyd.ac.in
9	Mrs. V. Sai Vishali	Office Assistant (Acad. & Exams)	9177297509	vishali@niperhyd.ac.in
10	Mrs. Sujatha Rao S	Office Assistant (Admn.)	9440662356	sujatha@niperhyd.ac.in
11	Mr. T. Praveen	Stores & Purchase Incharge	9290672335	praveen@niperhyd.ac.in
12	Mr. K. Venugopal Rao	Maintenance & Security Asst	9391019045	venugopal@niperhyd.ac.in
13	Mrs. B. Radhika	Hostel Women Care Taker	9704114511	radhika@niperhyd.ac.in
14	Mr. N. Yakaraju	Lab Attendant (Examination)	9676367082	
15	Mr. Ch. Balaraj	Lab Attendant (Stores)	9030947521	

TECHNICAL STAFF

S.No	Name	Designation	Mobile	e-mail
1	Dr. Md. Arifuddin	Laboratory Facilitation Mgr	9347506600	arif@niperhyd.ac.in
2	Mr. G.Venkateswarlu	System Administrator	9010309797	venki@niperhyd.ac.in
3	Mr. D. Krishna Kishore	Project Assistant (PT)	9966548425	kishore@niperhyd.ac.in
4	Mrs. U. Jayalakshmi	Project Assistant (PT)	9989143590	jayalakshmi@niperhyd.ac.in
5	Mr. D. Subramanyam	Project Assistant (PA)	-	Resigned
6	Mrs. Padmshree Patel	Project Assistant (PA)	-	Resigned
7	Mr. G. Chandrakanth	Project Assistant	9440327322	
8	Mr. Y. Narsaiah	Project Assistant (Library)	9966512159	narsaiah@niperhyd.ac.in
9	Ms. Kavitha	Project Assistant		Resigned
10	Mr. Syed Mudabbir Feroze	Laboratory Assistant (MC)	9866422936	feroze@niperhyd.ac.in
11	Mr. N. Natraj	Laboratory Assistant (PE)	9948445424	nataraj@niperhyd.ac.in
12	Mr. M. Prathapa Reddy	Laboratory Assistant (MC)	-	Resigned
13	Mr. MD. Moizudin	Electrical Attendant	9700350140	moiz0406@gmail.com
14	Mr. Prabhakar Singh Yadav	Machine Operator	9966551892	s.prabhas@yahoo.com
15	Mr. Veereshlingam	Lab Attendant	9885310992	
16	Mr. Lalit Kumar Paswan	Lab Attendant	8099569432	
17	Mr. V. Mallesh Sagar	Lab Attendant	9542532168	

Scheme, Outlay and Expenditure of NIPER, Hyderabad

National Institute of Pharmaceuticals Education and Research, (NIPER) Hyderabad is one among the Six New NIPERs, established on the lines of NIPER, Mohali by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, as an Institute of National importance to nurture and promote quality and excellence in Pharmaceuticals Education and Research and thereby develop Human Resources for the Pharmaceutical sector.

The Budgetary support in the form of Grant is provided by the Department of Pharmaceuticals under various heads. The detail of the expenditure incurred by the Institute during the academic year 2010-2011 is as follows.

Expenditure Statement for Year 2010-2011(NIPER - HYDERABAD)

S.no	Description	Amount in (₹)
1	Salaries/Honorarium to guest faculty	1,15,30,295
2	Stipend	1,10,71,427
3	TA/DA & Transport	32,22,610
4	Chemicals & Consumables	46,37,555
5	Contingencies/ Miscellaneous	17,70,258
6	Overheads	25,00,000
7	Project Manpower Expenditure	30,76,179
8	Printing & Publicity	2,65,683
9	Convocation and examination & NIPER - JEE	9,00,000
10	Electricity & Water	21,02,215
11	M/s. Deloitte Consultancy	12,39,840
12	Computers & Internet	27,43,522
13	Furniture	8,59,363
14	Books & Journals	4,26,592
15	Equipments/ (Teaching aids)	1,08,50,605
16	Works (repairs & maintenance)	11,76,922
	Total	**5,83,73,066**

Instruments/Furniture procured during Academic year 2010-11

Total amount spent on procuring major lab equipment for departments and furniture for hostel during the academic year 2010-11 is ₹. **1,43,79,000/-**

S. No	Description of Item	Qty	Purchase Order Value	Department
1.	Laboratory water tap 3- way with central swan neck and side taps straight height of central tap screwed for ½ connection chromium plated	15 Nos.	14500.00	MC
2.	DESSICATOR VACCUM TARSON MAKE	1	16000.00	MC
3.	MELTING POINT APPARTUS	4 Nos.	12000.00	MC
4.	TARSON MAKE LAB MATERIAL	13 Nos.	21000.00	PA
5.	Single Bed Cots Model:ESCA Computer table Buddy with KBPT Blue colour cloth Chair Model:1007 Cup board slimline with locker, Metal perforated Chair black colour (1set 3 Chairs)	20 Nos. 20 Nos. 20 Nos. 20 Nos. 06 sets	76000.00	Furniture
6.	Digital Water Bath with Digtal temapature controller cum Indicator with 4-6 holes	03 Nos.	28000.00	MC
7.	High Vaccum Pump	01 No.	42000.00	MC
8.	Tablet Disintegration Test Apparatus 2 basket	01 No.	36000.00	PA
9.	Dissolution Test Apparatus with LCD display & Digital programming	01 No.	135000.00	PA
10.	Vaccum pump oil free	01 No.	13000.00	PA
11.	Microprocessor Controller Centrifuge	01 No.	52000.00	PA
12.	Friability Test Apparatus Unit with Double Aclylic Drums with Digital display	01 No.	23000.00	PA
13.	Tablet Punching Machine	01 No.	250000.00	PE
14.	Mini Stirrer Digital Overhead	04 Nos.	21000.00	PE
15.	Electrically operated grass mover	1 No.	30000.00	Garden
16.	Desktop computers Model HP/Hp3000 series	23 Nos.	771000.00	Comp. Lab
17.	Cyber scan PH Tutor pH meter Model: Euteh	1 No.	13000.00	PE
18.	Vaccum Desicators Tarson make Cat No.403040	2 Nos.	10000.00	MC
19.	Magnetic Stirrers Type MS-2 with hot plate Magnetic Stirrers Type MS-3 without hot plate	14 Nos. 5 Nos.	167000.00	MC,PT,PA
20.	Rotary evaporator & Rotavac valve etc Hei-vap units and valve control pump	3 Nos. 3 Nos.	531000.00	MC, PE
21.	Precision Weighing balance for chemical	2 Nos.	364000.00	MC PA
22.	Dimmerstats	10 Nos.	47000.00	MC
23.	Hot Air Oven	3 Nos.	123000.00	MC, PA,PT
24.	Vaccum pump	3 Nos.	74000.00	PC, MC
25.	Vaccum pump oil free	1 No.	20000.00	MC
26.	Laminarhood	2 Nos.	173000.00	PC

S. No	Description of Item	Qty	Purchase Order Value	Department
27.	Inverted Trinocular Microscope with phase contrast and fluorescene	1 No.	1885000.00	PC
28.	CO2 Incubator	1 No.	281000.00	PC
29.	Liquid Nitrogen storage containers of 60 litrs	2 Nos.	366000.00	PC
30.	Animal Weighing Balance	1 No.	91000.00	PC
31.	Refrigerated centrifuge for blood and biological samples	1 No.	633000.00	PC
32.	Ultra Low temperature freezer (-200C)	1 No.	287000.00	PC
33.	Autoclave Digital Vertical	1 No.	144000.00	PC
34.	Tray Dryer	1 No.	125000.00	PE
35.	Analytical Balance	1 No.	48000.00	PE
36.	SMF Batteries 12v, 42 Ah buy back basis	20 Nos.	42000.00	MC
37.	Dissolution Test Apparatus with LCD Display and Digital programming	2 Nos.	270000.00	PE
38.	Lyophilizer Lab scale	1 No.	545000.00	PE
39.	Automatic Blood Analyzer	1 No.	1365000.00	PE
40.	Air Cotton for Animal House		305000.00	Animal House
41.	Deep freeze Chest	1 No.	502000.00	PC
42.	Plethyscometer	1 No.	245000.00	PC
43.	Coating PAN with spray gun	1 No.	210000.00	PE
44.	Spray Dryer (Minor or Table Top)	1 No.	649000.00	PE
45.	Elevated plus	1 No.	388000.00	PC
46.	Homogenizer (Disperser) with Different shaft	1 No.	276000.00	PE
47.	Probe sonicator with different probes	1 No.	398000.00	PE
48.	Fluid Bed Dryer (FBD)	1 No.	784000.00	PE
49.	Lux Meter Taiwan Make Digital Electronic Veiwer Calipers	1 No 1 No	14000.00	PE
50.	Split Air conditioners for Animal House 3 Star Wall Mounting	8 Nos.	305000.00	Animal House
51.	Online UPS System 25 KVA Online UPS System 10 KVA	2 Nos 1 Nos	774000.00	Admin.
52.	Photocopy color copies Machine (A3 size) Make Xerox Model:WC-7428	1 No.	319000.00	Exam. cell
53.	Microwave OenModel: CE1031 DAT Make: Samsung	1 No	11000.00	MC
54.	Aquaguard Hi-flow water filter-cum-purifier	1 No.	9500.00	Hostel
55.	CO2 Cylinder and N2 Cylinder Commercial	2 Nos	45000.00	PC, MC

*MC-Medicinal chemistry; PA-Pharmaceutical Analysis; PC-Pharmacology&Toxicology; PE-Pharmaceutics

Activities of NIPER Hyderabad (2010-11)

The NIPER-Hyderabad's fourth academic year 2010-11 started with a grand orientation programme held on 2nd August, 2010 with the arrival of admitted students in central counselling at Mohali. In the orientation program, students were briefed about NIPER Hyderabad, faculty and the facilities. Also several experts from academia and industries interacted with students during the program. NIPER-H faculty have participated with great enthusiasm and conducted the courses which were not only confined to syllabus, but also trained for Communication, Personality Development Skills and Physical Fitness. The 3rd semester students resumed their research projects at various premier research organizations like IICT, NIN, USP, NIMS Hyderabad and in some leading pharmaceutical industry from August 2010. Examination cell of NIPER-H conducted all the examinations for M.S. (Pharm)1st semester and 3rd semester (Mid-Term and End-Semester examinations) and results were announced in a systematic way as per the academic calendar.

Second and fourth semesters were commenced after a small sabbatical from 3rd January 2011. Mid-Term project appraisal of 4th semester students was conducted in February 2011 and mid-Term examination for 2nd semester was scheduled in March 2011. End-Term examination of 2nd semester was held in the month of May 2011. The 4th semester students thesis and presentation was evaluated by expert committees and the entire process finished in June 2010. All the results for M.S (Pharm) degree were announced in the June 2011.

During the academic year 2010-11 NIPER-H organized several workshops and certificate programs very effectively and got the enormous response from various academic and industries from all over the India. The major certificate programme was a Workshop on Drug Discovery, Drug Design, Development, Delivery and Preclinical Studies (D4PS) organized in collaboration with Novartis in three modules during October and November 2010. Over 200 participants were trained well in this program. NIPER-H also organized a Summer Workshop on "Computer Aided Drug Design & Discovery (CAD3), in April 2011. More than 120 participants got hands on experience on computer aided drug design. Apart from these workshops, several international conferences and symposia were organized jointly with RSC London, CRSI India, IICT Hyderabad, during the academic year 2010-11. The faculty and the students were

encouraged in scientific publication and presentation to bring NIPER HYDERABAD under the scientific research platform. This led to several publications in reputed journals. NIPER-H have also organised several conferences and seminars. Faculty and students were sponsored for conferences such as IPC, IPS Bio Asia, etc.

NIPER Hyderabad has taken up strengthening the laboratory and library facilities. A large number of instruments have been installed and some are under the process of installation. A large number of books have been added to library database including 15662 titles. To hasten the literature search exhaustively about any scientific findings, NIPER Hyderabad provided Reaxys factility in NIPER campus.

In addition to providing quality education as its priority, NIPER Hyderabad has organized campus recruitments for the placement of students. Noted industries including Perrigo, Novartis, Suven, Data Monitor, Biocon, Pharmexcil, AMRI, SAPL, DMV, etc, came forward to visit NIPER Hyderabad and selected students for employment. NIPER-H has organized a few student welfare programmes like eye camps and sports events and cultural programmes during the academic year 2010-11. Apart from the academic and scientific programmes, NIPER-H students, faculty and staff have participated in social activities like blood donation, food and clothes donation to old age homes and plantation program to protect the environment.

Academic Calendar for the Year 2010-11
July to December, 2010

Activity	Dates
Commencement of Semester	2nd Aug 2010
Orientation and Departmental Introduction session of Faculty, Staff and Students	2nd Aug 2010
Submission of Semester Attendance of Students from 2nd Aug to 29th Sep 2010	30th Sep 2010
Mid-Term Examination	4th – 8th Oct 2010
Foundation Day Celebrations	**19th Oct 2010**
Presentation of Seminars (Ist Semester students)	15th – 26th Nov 2010
Faculty Assessment by Students	25th – 26th Nov 2010
Submission of Semester Attendance of Students	Up to 1st Dec 2010
Submission of Mid-Term Report on Thesis Work {3rd semester M.S. (Pharm.)}	7th – 8th Dec 2010
End-Semester Examination	6th – 17th Dec 2010
Mid-term Presentation of Thesis Work {3rd Semester M.S.(Pharm.)}	13th – 17th Dec 2010
Provisional Registration for January to June 2010 Semester	13th – 28th Dec 2010
Semester Break. The Students shall have the option to opt for Educational / Industrial Tour in place of Semester Break Winter Break for Faculty only (2 weeks)	25th – 30th Dec 2010 20th – 31st Dec 2010
Submission of Marks by Examiners (1st, 3rd Semester Masters)	Upto End of 1st week of Jan 2011
Declaration of Result (1st, 3rd Semester Masters)	Upto 17th Jan 2011

Academic Calendar for the Year 2010-11
July to December, 2010

Activity	Dates
Commencement of Semester	3rd Jan 2011
Assignment of 2nd Semester Masters Students to Advisors	2nd week of Jan 2011
Submission of Semester Attendance of Students	Upto 28th Feb 2011
Mid-Term Examination	7th – 11th Mar 2011
Constitution of SRCs for 2nd Semester Students	3rd Week of Apr 2011
Presentation of Seminar (2nd Semester students)	23rd April – 6th May 2011
Faculty assessment by the Students	5th – 6th May 2011
Provisional Registration July to December 2011 Semester	9th May – 23rd May 2011
Submission of Semester Attendance of Students upto 7th May 2011	Upto 9th May 2011
End-Semester Examination	16th – 27th May 2011
Summer Recess for Faculty only (03 weeks)	1st July – 22nd July 2011
Submission of Marks by the examiners (End Semester exam)	Up to 7th June 2011
Submission of Unbound Copy of Thesis {4th Semester M.S.(Pharm.)}	Up to 10th June 2011
Defence of Thesis {4th Semester M.S.(Pharm.)}	20th – 24th June 2011
Declaration of Result of End-Semester examination (2nd Semester)	Up to 20th June 2011
Submission of Bound Copies of the Thesis {4th Semester M.S.(Pharm.)}	Upto 30th June 2011
Declaration of Results {4th Semester Exams}	4th July 2011
Notification of Time Table for Aug-Dec, 2011 Semester	8th July 2011
Orientation of New Students	30th July 2011
Commencement of Semester	1st Aug 2011

Enrolment of Students in 2010-11

The total number of students who have been enrolled to pursue M. S (Pharm) in NIPER Hyderabad during academic year 2010-11

Department	No. of students Admitted (2010-11)	No. of Senior students	Total
Medicinal Chemistry	30	28	58
Pharmaceutical Analysis	14	15	29
Pharmacology and Toxicology	15	14	29
Pharmaceutics	16	-	16
Total	75	57	132

Academic Departments

1. Department of Medicinal Chemistry

The details of M.S. (Pharm) students intake in the academic year:

S.No.	Academic year	No. of Students	Present status
1.	Senior students	28	Passed out and well placed
2.	Admitted in 2010-11	30	Pursuing project work

The dept has got the approval for Ph.D Programme with intake of 3 students commencing from academic year 2011-12

Faculty Profile:

Dr. A. Krishnam Raju M.Sc., Ph.D.,
Course Coordinator
Medicinal Chemistry
Email: raju@niperhyd.ac.in
Contact No: +91 40 23073740;
Ext. 2007

Research Interests:
- Total Synthesis and biological evaluation of medicinally important natural products/natural product like compounds.
- Design and synthesis of biologically potent novel molecules
- Development of novel, efficient and environmentally friendly & synthetically useful methodologies

Prof. V. Peesapati M.Sc., Ph.D.,
Professor
Medicinal Chemistry
peesapati@niperhyd.ac.in
Contact No: +91-9391014579

Research Interests:
- Synthesis of Prostaglandin Endoperoxide Analogues having Potent Activity as Thromboxane receptor Antagonists.
- Synthesis of Novel Organic Monomers and Polymers having Non-linear Optical Properties.
- Synthesis of sperm Glycolysis inhibitor targeted at sperm in the epididymis.

Dr. Nagendra Babu Bathini M.Sc., Ph.D.,
Assistant Professor-Department of Medicinal Chemistry; Examination In-Charge, NIPER Hyderabad
Email: bathini@niperhyd.ac.in
Contact No: +91 40 23073740;
Ext. 2016: mobile: +91-9052328050

Research Interests:
- Total Synthesis of Biologically Important Natural Products and their hybrids, Mainly on anti microbial, anti cancer and anti depressant candidates
- Design and synthesis of Peptides and Peptidomimetics by using natural and unusual amino acids
- Development of novel and efficient methodologies and its exploitation in organic synthesis

Dr. Kolupula Srinivas M.Sc., Ph.D.,
Assistant Professor
Medicinal Chemistry
skolupula@niperhyd.ac.in
Contact No: +91-9177846399

Research Interests:
- Molecular Modeling / Computer Aided Drug Design
- Peptidomimetics/ Molecular Drug Delivery Systems
- Supramolecular Chemistry / Molecular Recognition
- Computational Photochemistry/ Reaction Mechanisms

Dr. N. Shankaraiah M.Sc., Ph.D.,
Assistant Professor
Medicinal Chemistry
Email: shankar@niperhyd.ac.in
Contact No: +91-9177597879

Research Interests:
- Design and Synthesis of Anticancer Agents
- Total Synthesis of Natural Products
- Combinatorial Chemistry
- Mechanistic Investigations of Organic Reactions by ESI-MS/MS
- Exploration of New useful Chemical Methodologies in Organic Synthesis

SUPPORTING STAFF	
Mr. Syed Mudabbir Feroze	Laboratory Assistant
Mr. Prathap Reddy M.	Resigned on 18-11-2011
Ms. Kavitha D.	Resigned on 30-11-2011

RESEARCH ACTIVITIES

(a) Medicinal Chemistry

Protein kinases catalyze the transfer of phosphate of ATP to specific hydroxyl group of serine, threonine, or tyrosine residue of cellular substrates including transcription factors, enzymes, etc. The human genomic study reveals that ~2% of total genome constitutes for protein kinases, further sequencing the genome has at least 518 distinct kinases and have been grouped in to ~20 families. The process of phosphorylation is normal in physiological condition however under the pathological conditions the protein kinases can be down regulated, leading to alterations in the phosphorylation and resulting in uncontrolled cell division, inhibition of apoptosis and other abnormalities leading to disease. A number of diseases including diabetes, inflammation, and cancer have been linked to unregulated protein kinase mediated signaling pathways.

The use of small-molecule inhibitors of protein function is one of the most efficient ways to treat human disease including malignancy. Kinases have become important molecular targets in cancer therapy and other diseases and they are considered as attractive targets for drug discovery next to G protein coupled receptors. The existing drug molecules such as Gleevec, Iressa and Tarceva have demonstrated prolific effects in controlling cancer with maximum safety. Kinases such as Abl, EGFR, VEGFR, PDGF, Src, B-raf, Aurora, etc, have become attractive targets for medicinal chemists in the discovery of novel drug molecules in cancer treatment. Most of the kinase inhibitors interact with kinase at the conserved ATP binding region (ATP competitive kinase inhibitors). This structural conservation in particular kinases is grouped into families which share similar structural features and folding and is often responsible for the untoward effect which may be due to cross interactions leading to fatalities.

Promiscuous inhibitors are those which suffer with side effects. An anticancer drug imatinib (STI571) with activity profile against five kinases (Abl, C-Kit, Lck, PDGFR, and CSFIR) has been found to exhibit potential cardiac toxicity. Similar kind of cardiovascular toxicities have been demonstrated by promiscuous kinase inhibitors such as SU11248 and Sorafenib (Bay 43-9006). The new kinase inhibitors may potentially enable the selective regulation of specific protein kinase associated with a particular disease but without affecting other protein kinase involved in normal physiology.

Various analogues containing urea group have been synthesized and evaluated for p38 kinase inhibitory activity. Some of the inhibitors have also exhibited potent in vivo anti-inflammatory activity. Molecular docking studies of urea derivatives have indicated similar binding interaction profile as depicted by the clinical candidate possessing p38 kinase inhibitory activity. The urea derivatives have been further modified to keto amides and the activities are awaited.

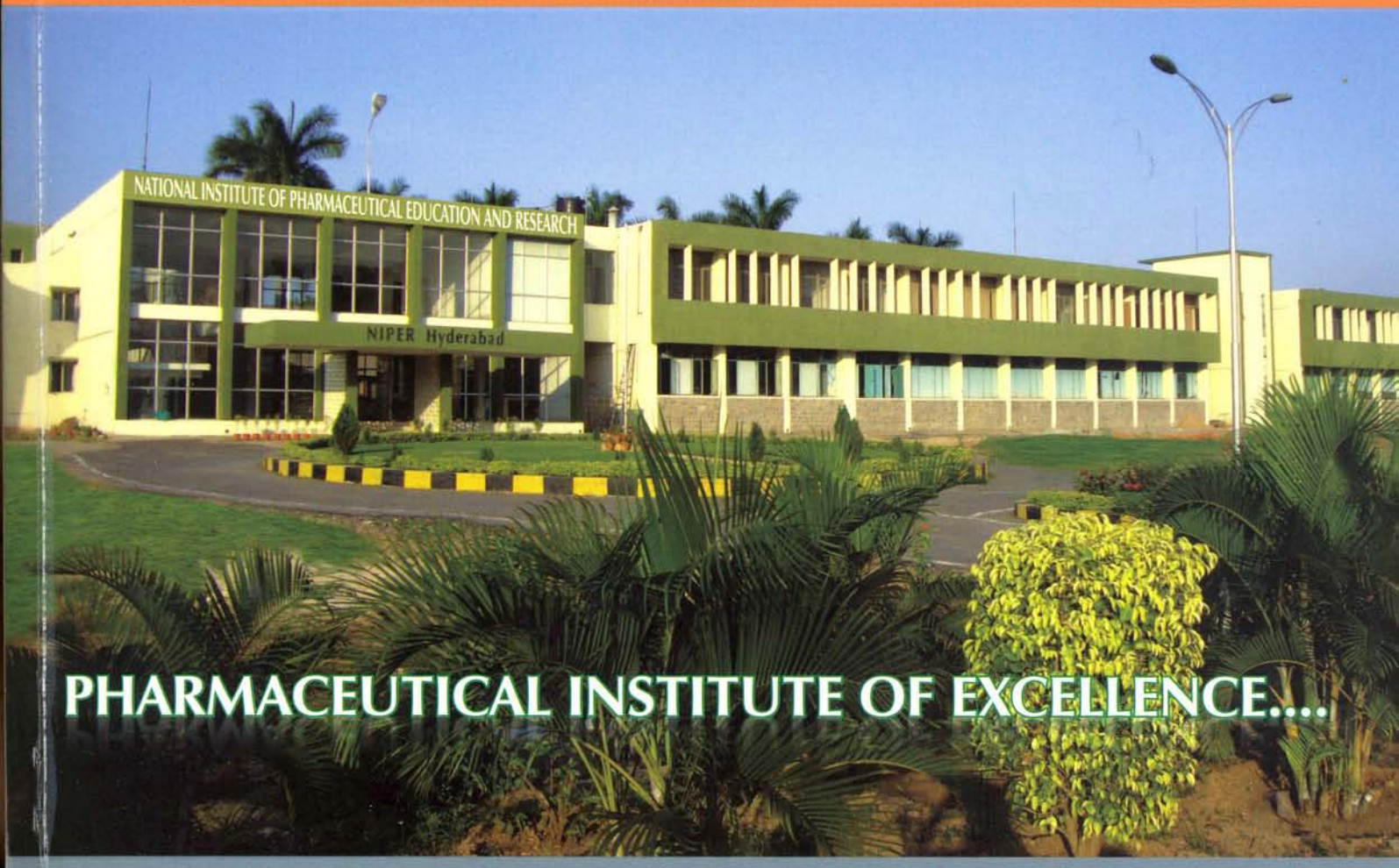
The common strategy of anticancer drug discovery has been to unravel the biological pathway by which an effective anticancer agent modulates and use this knowledge in the mechanism based drug discovery program. This has been achieved both through the natural product screening and chemical synthesis. The development of new therapeutic agents, as well as the identification of molecular probes for the study of the chemical/biological interfaces, is one of the major goals in biomedical research. In this context, the availability of large libraries of small organic molecules, covering as much chemical space as possible, is seen as the only means which guarantees potential modulation of the many biological targets that are ultimately being unveiled by genomics.

The renewed interest on podophyllotoxin as an anticancer drug started in 1950s and much work has been done by Sandoz Laboratories Basel, Switzerland. Three semisynthetic derivatives of podophyllotoxin, etoposide (VP-16), teniposide (VM-26) and etopophos, are widely used as anticancer drugs and show good clinical effects against several types of neoplasms including testicular and small-cell lung cancers, lymphoma, leukaemia, Kaposi's sarcoma, etc. However, several limitations such as myelosuppression, development of drug resistance and cytotoxicity towards normal cells, still exist. To a greater or lesser extent, this general profile applies to cytotoxic agents from a wide range of mechanistic classes e.g., alkylating agents, DNA intercalators, antifoliates, tubulin binders, topoisomerase inhibitors, this includes many of the best known and most widely used anticancer drugs, such as etoposide, doxorubicin, methotrexate and cisplatin etc.

Metabolic studies of podophyllotoxin have given some insights into its mechanism of action. VP-16 has been found to undergo O-demethylation by rat and mouse liver microsomes and purified rat liver cytochrome P-450 to produce the O-dihydroxy or catechol of VP-16. Several enzymatic systems viz. rat liver microsomes/NADPH, horse radish peroxidase/H2O2, prostaglandin synthase/arachidonic acid, myeloperoxidase/H2O2 metabolize VP-16 to produce capable of irreversible binding to proteins and DNA, which has been showed to be the quinone derived from the corresponding alcohol. The metabolism of VP-16 in isolated perfused rat liver has been studied, this finds the presence of glucoronides in the bile of VP-16 perfused liver indicating that VP-16 undergoes conjugation with glucoronic acid and the formation of the microisomer of VP-16 in the liver has also been observed. The N-demethyl compound is the major metabolite of dimethylamino etoposide (NK 611). Top-53 glucoronide is found to be the major metabolite of TOP-53, a new podophyllotoxin derivative.

वार्षिक प्रतिवेदन
ANNUAL REPORT
NIPER-HYDERABAD

Academic Year 2010-2011



PHARMACEUTICAL INSTITUTE OF EXCELLENCE....

HYDERABAD

राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCH

(Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Govt of India)

Balanagar, Hyderabad 500 037, A.P., INDIA Ph: +91-40-23073741, Fax: +91-40-23073751,

Email: projectdirector@niperhyd.ac.in Website: www.niperhyd.ac.in

NIPER-HYDERABAD

Our Destination: creation of future leaders in pharma sector. We are initiating ambitious plans for production of experts with the energy and determination in the field of pharmaceuticals.

Dr. J. S. Yadav, Director, IICT
(Mentor Institute for NIPER-Hyderabad)

Dr. Ahmed Kamal
Outstanding Scientist, IICT &
Project Director, NIPER-Hyderabad

Prof. N. Satyanarayana
Registrar, NIPER-Hyderabad

Dr R. Srinivas,
Chief Scientist-IICT &
Course Coordinator,
NIPER-Hyderabad

Dr S. Ramakrishna
Principal Scientist-IICT &
Course Coordinator,
NIPER-Hyderabad

Project Director, Registrar, Course coordinators, and Faculty of NIPER-Hyderabad

A Message from
The Director, Indian Institute of Chemical Technology

I am pleased that National Institute of Pharmaceutical Education and Research (NIPER-Hyderabad) has successfully completed 4 years of its inception. The first batch (2009), second batch (2010) & 3rd batch (2011) of the M.S. (Pharm.) course students in four (Medicinal Chemistry, Pharmaceutical Analysis, Pharmacology & Toxicology and Pharmaceutics) disciplines have completed the M.S degree and most of them have joined various Research institutions and Pharmaceutical companies. The new M.S course in Pharmaceutics is started in the year 2010. The 4th batch students are working for their research projects largely at its mentor institute. The institute is in the process of getting established by providing the necessary infrastructure for its growth particularly to take up the research activities in advanced areas of pharmaceutical sciences and initiated the doctoral programmes in this year.

I am happy to know, NIPER is going to start a National Centre for Bulk Drug Research and Development to serve the pharmaceutical industry. IICT as its mentor institute is offering its full support in the growth and development of this institute more precisely in the advanced practical training, research project works of the students through its scientific faculty and IICT supporting the NIPER for conducting various workshops and seminars in drug discovery.

I am happy to extend my support and guidance to see that this institute flourishes in advance pharmaceutical science education and research in the coming years.

My best wishes for NIPER-Hyderabad in its future endeavours.

Dr. J.S. Yadav,
Director
Indian Institute of Chemical Technology

yadav@iict.res.in
Phone : 91-40-27193030

HYDERABAD

A Message from
The Project Director, NIPER-Hyderabad

NIPER-Hyderabad has successfully completed four years of its functioning after its establishment in 2007. It is my pleasure to present to you the progress report of NIPER-Hyderabad for the period of 2010-11.

The 1st, 2nd and 3rd batch students of the M.S. (Pharm) course have come out after their successful completion of the course and fourth batch of students are working on their projects while the fifth batch students have started their first semester course.

The vision of this institute is to be a vital source of excellence in achieving targets relating to Human Resource Development, Research and Development in the field of pharmaceutical sciences and allied fields and to be a strong platform for collaborative support to the Pharmaceutical industry. We are steadily progressing on this path as reflected from the number of students that have joined the pharma industries and pursuing research activity abroad as well at the national institutes in the country. The research labs are being developed in this institute and the faculty has been strengthened to provide the best education in pharmaceutical sciences. This institute is presently being mentored by Indian Institute of Chemical Technology (IICT), Hyderabad and however, the facilities are being created at this institute for it to become self reliant.

The Department of Pharmaceuticals under the Ministry of Chemicals & Fertilizers has been extremely helpful in the development of this institute.

I am thankful to my colleagues both from the scientific as well as administrative side and students for their cooperation.

It is my belief that this institute will grow to reach greater heights in the years to come.

Dr. Ahmed Kamal
Project Director
NIPER-Hyderabad

projectdirector@niperhyd.ac.in
Phone : 040-23073741

HYDERABAD

A Message from
The Registrar, NIPER-Hyderabad

It is a great pleasure that National Institute of Pharmaceutical Education and Research Hyderabad, is releasing its Annual Report 2011 for the academic year 2010-11. I am sure that within a period of four years NIPER Hyderabad has progressed well in academic and research fronts.

In the year 2010-11, NIPER-H has started Pharmaceutics, a new course in M.S.Pharm with an intake of 15 students with total strength of 131 (75+56). Ph.D program in this institute commenced from academic year 2011-12 in 3 disciplines with an intake of 3 students each. NIPER faculty has conducted good no. of Conferences / Workshops in collaboration with IICT, Pharma industries and other research institutes. NIPER-H was also in forefront in placement activities. I am sure that NIPER Hyderabad continues to progress with pace to quality education and emerge as a role model institute in India and around the globe. Young and well qualified faculty have been inducted into NIPER to train and fine tune the students. Under the leadership of Dr. J. S. Yadav, Director, IICT and Dr. Ahmed Kamal, Project Director, NIPER Hyderabad will flourish and fulfil the motto of its establishment.

N. Satyanarayana

Prof. N.Satyanarayana,
Registrar
NIPER-Hyderabad

registrar@niperhyd.ac.in
Phone : 040 23073740

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About NIPER Hyderabad

National Institute of Pharmaceutical Education and Research (NIPER) is a National level Institute in Pharmaceutical Sciences with proclaimed objectives of becoming centre of excellence for advance science and research in pharmaceutical sciences. Previously, there was only one NIPER at Mohali. Later, the Govt. of India (Ministry of Chemicals & Fertilizers) has started 6 such institutes under the aegis of this Ministry. NIPER-Hyderabad is one among them which was started about 4 years back. This institute offers a 2 year Post Graduate degree course; MS (Pharm) in 4 disciplines (Medicinal Chemistry, Pharmacology & Toxicology, Pharmaceutical Analysis and Pharmaceutics) with a total intake of 75 students. Ph.D programme in this institute is going to commence from academic year 2011-12 in 3 disciplines (Medicinal Chemistry, Pharmacology & Toxicology and Pharmaceutics) with an intake of 3 students each. It is located at the former R&D Centre of IDPL, Balangar, Hyderabad. Presently, Indian Institute of Chemical Technology (IICT), Hyderabad a premier CSIR Research Laboratories, is the Mentor Institute for NIPER, Hyderabad.

NIPER-Hyderabad puts special efforts to update the knowledge of students and make them to expose and experience with various advanced techniques which are essential for Drug Discovery Research. In this regard, NIPER itself is procuring the requisite lab equipments besides the facilities extended by IICT (Mentor Institute). Many of the NIPER students do dissertation work in National Research institutes and reputed Pharma industries. NIPER-Hyderabad conducts several National / International Seminars / Workshops with a regular time interval. This will enable the NIPER students to get an exposure to the advanced research in a Pharmaceutical Sciences. NIPER also invites experts from various industries and academia to deliver lectures on special topics. Besides above, NIPER takes special care to develop the students' in communication skills / personality development / aptitude skills. NIPER-Hyderabad is in forefront in placement activities with about 75% in the academic year 2010. It maintains about 1:8 faculty student ratio. Some of the faculty members have received prestigious awards like OPPI Young Scientist Award from Organization of Pharmaceutical Procedures of India for 2010 as well as 2011 and IDMA Young Pharma Analyst Award from Indian Drugs & Manufacturers Association (IDMA) for the year 2011.

NIPER-Hyderabad is being created a National Centre for Bulk Drugs to cater to the needs of pharmaceutical academia and the industry. Very soon, it is likely to become the Centre of Excellence for Advance Studies and Research in Pharmaceutical Sciences. This institute will play an important role in the Human Resource Development for the ever growing Indian Pharmaceutical industry, which has been in the forefront of India's science based industries with wide ranging capabilities in this important field of drug manufacture.

Objectives of NIPER Hyderabad

- Enhancing creativity, motivation & drive and inculcating professionalism
- Bringing synergy between academic, R&D, technology and industry through training and exposure for such environment.
- Bridging collaborations between pharmacy, biotechnology, information technologies and preparing for meeting global challenges.
- Preparing professionals to suit to the need of pharmaceutical industry
- Developing and practicing e-learning for the professionals and training for teachers, researchers, regulators in the respective fields
- Creating a world class institute of teaching and research in the field of Pharmaceutical Sciences
- Expand research activities in new avenues and emerging segments
- Explore national and international collaboration in pharmaceutical sciences

Citizen's/Clients' Charter

(i) Vision and Mission Statement:

VISION:

To achieve a position of one of the leading global institutions in the field of higher learning and research in Pharmaceutical Sciences

MISSION:

To strive towards excellence in the field of higher learning and research in Pharmaceutical Sciences and to be one of the principal sources of professional manpower in the field, for strengthening the Indian Pharma industry in providing medicines at affordable price by using latest aspects of Science & Technology.

(ii) Details of business transacted by the organization:

1. To provide quality education and advanced knowledge in the field of Pharmaceutical Sciences, through the 2 year M.S (Pharm.) course, with a student intake of 75 for each year;
2. To conduct Ph.D programme in the disciplines of the institute.

(iii) Details of customers/clients:

Persons with eligible qualification from a recognized university admitted as students at the NIPER:

1) a) For the M.S (Pharm.) course : B. Pharm /M.Sc (organic Chemistry) for the discipline of Medicinal Chemistry (b) B. Pharm / M.Sc Organioc Chemistry / Analytical chemistry, for the discipline of Pharmaceutical Analysis / (c) B. Pharm / B.V.Sc/ MBBS for Pharmacology & Toxicology (d) B. Pharm for Pharmaceutics
2) Post graduates in Pharmacy from any recognized university/NIPERs for the Ph D programme.

Provisions for reservation shall be made as per Government of India rules in force.

(iv) Statement of services provided to each citizen group /client group separately

S.No.	Client Group	Services provided to the Group
1.	**Students of M.S (Pharm.)**	Teaching at the class rooms with talented faculty of the concerned subjects as per the syllabus, semester-wise, as prescribed by the Department under the NIPERs Act. Conducting practicals in the labs with the equipments and the consumables required for the practicals work in the concerned subjects as per the syllabus, semester-wise Providing Library with books and journals in the concerned subjects. Conducting Student Seminars, Conferences, Personality Development and other extracurricular activities. Conducting semester-wise examinations and announcement of semester-wise results. Award of Degrees to the students who fulfill the criteria for award of the degree; Make payment of stipend of ₹.8000 per month, based on the attendance certificate from the course co-ordinator; Partial Refund of tuition fee for the selected students of the economically weaker sections, semester-wise, based on the GPA score of 6.0 and above
2	**Ph D Programme**	Payment of stipend of ₹.23,400/- per month, subject to fulfilment of the requirements Providing faculty as guides, who train the students in the advances of research and guide the students for research studies in the specialized areas. Conduct examination at the end of the course Award of degree to the students who fulfill the requirements for the award of the Degree.

(v) Details of Grievances Redress Mechanism and how to access the same

The Student Welfare Officer shall meet the students on a specified day every week at a fixed time to be intimated in advance, to clear the grievances, if any. A Grievance Box is kept in the Academic cell and grievances received through that box are given to the Student Welfare officer for action at the weekly meeting.

(vi) Expectations from the Clients:

A: Students of M.S (Pharm.):

- Remit the semester tuition fee promptly into the Bank account of the NIPER, every semester
- Fulfill the requirement of GPA of 6.0 and above if the student is one who is selected for the benefit of the partial waiver of tuition fee in respect of the economically weaker sections.
- Fulfill the punctuality and attendance requirement as prescribed from time to time.
- Fulfill the requirement of courtesy, decorum and discipline of studentship.
- Fulfill the requirement of at least the minimum GPA for each semester and improve as per guidance by the faculty.
- Fulfill the requirement of overall GPA at the end of the course, to be eligible for the award of the degree.

B: Students of Ph D programme

As may be prescribed from time to time

Administrative and Technical Staff during 2010-11
(Useful Telephone Numbers NIPER-Hyderabad)

1.	Project Director Office	040 – 23073741/51	projectdirector@niperhyd.ac.in
2.	Registrar Office	040 - 23073740	registrar@niperhyd.ac.in
3.	Administrative Office	040 - 23074750	
4.	Examination Cell	040 - 23423749 (Ext. 2016)	coe@niperhyd.ac.in
5.	Placement Cell	040 – 23073749 (Ext. 2011)	placementcell@niperhyd.ac.in
6.	Laboratory Facilitation Manager	040 - 23423749 (Ext. 2020)	
7.	Stores and Purchase	040 - 23423749 (Ext. 2018)	
8.	Hostel	040 - 20000358	

ADMINISTERIAL STAFF

S.No	Name	Designation	Mobile	e-mail
1	Shri M.S.N. Murthy	Administrative Officer	9701005604	murthy@niperhyd.ac.in
2	Mrs. M. Swapna Devi	Secretarial Assistant	9490931082	swapna@niperhyd.ac.in
3	Mr. M. Monohara	Assistant (Admin)	9493979623	monohara@niperhyd.ac.in
4	Mr. Rajesh Kumar Jha	Assistant (Admin)	8897299878	rajeshjha@niperhyd.ac.in
5	Mrs. T. Sunitha	Assistant (Admn), Accounts	9849792700	sunitha@niperhyd.ac.in
6	Mrs. A. Kalpana	Assistant (Admn), S & P	9676207521	kalpana@niperhyd.ac.in
7	Mrs. P. Ramadevi	Assistant (Admn)	9491340949	ramadevi@niperhyd.ac.in
8	Ms. A. Anupa	Office Assistant (Admn.)	9848350628	anupa@niperhyd.ac.in
9	Mrs. V. Sai Vishali	Office Assistant (Acad. & Exams)	9177297509	vishali@niperhyd.ac.in
10	Mrs. Sujatha Rao S	Office Assistant (Admn.)	9440662356	sujatha@niperhyd.ac.in
11	Mr. T. Praveen	Stores & Purchase Incharge	9290672335	praveen@niperhyd.ac.in
12	Mr. K. Venugopal Rao	Maintenance & Security Asst	9391019045	venugopal@niperhyd.ac.in
13	Mrs. B. Radhika	Hostel Women Care Taker	9704114511	radhika@niperhyd.ac.in
14	Mr. N. Yakaraju	Lab Attendant (Examination)	9676367082	
15	Mr. Ch. Balaraj	Lab Attendant (Stores)	9030947521	

TECHNICAL STAFF

S.No	Name	Designation	Mobile	e-mail
1	Dr. Md. Arifuddin	Laboratory Facilitation Mgr	9347506600	arif@niperhyd.ac.in
2	Mr. G.Venkateswarlu	System Administrator	9010309797	venki@niperhyd.ac.in
3	Mr. D. Krishna Kishore	Project Assistant (PT)	9966548425	kishore@niperhyd.ac.in
4	Mrs. U. Jayalakshmi	Project Assistant (PT)	9989143590	jayalakshmi@niperhyd.ac.in
5	Mr. D. Subramanyam	Project Assistant (PA)	-	Resigned
6	Mrs. Padmshree Patel	Project Assistant (PA)	-	Resigned
7	Mr. G. Chandrakanth	Project Assistant	9440327322	
8	Mr. Y. Narsaiah	Project Assistant (Library)	9966512159	narsaiah@niperhyd.ac.in
9	Ms. Kavitha	Project Assistant		Resigned
10	Mr. Syed Mudabbir Feroze	Laboratory Assistant (MC)	9866422936	feroze@niperhyd.ac.in
11	Mr. N. Natraj	Laboratory Assistant (PE)	9948445424	nataraj@niperhyd.ac.in
12	Mr. M. Prathapa Reddy	Laboratory Assistant (MC)	-	Resigned
13	Mr. MD. Moizudin	Electrical Attendant	9700350140	moiz0406@gmail.com
14	Mr. Prabhakar Singh Yadav	Machine Operator	9966551892	s.prabhas@yahoo.com
15	Mr. Veereshlingam	Lab Attendant	9885310992	
16	Mr. Lalit Kumar Paswan	Lab Attendant	8099569432	
17	Mr. V. Mallesh Sagar	Lab Attendant	9542532168	

Scheme, Outlay and Expenditure of NIPER, Hyderabad

National Institute of Pharmaceuticals Education and Research, (NIPER) Hyderabad is one among the Six New NIPERs, established on the lines of NIPER, Mohali by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, as an Institute of National importance to nurture and promote quality and excellence in Pharmaceuticals Education and Research and thereby develop Human Resources for the Pharmaceutical sector.

The Budgetary support in the form of Grant is provided by the Department of Pharmaceuticals under various heads. The detail of the expenditure incurred by the Institute during the academic year 2010-2011 is as follows.

Expenditure Statement for Year 2010-2011(NIPER - HYDERABAD)

S.no	Description	Amount in (₹)
1	Salaries/Honorarium to guest faculty	1,15,30,295
2	Stipend	1,10,71,427
3	TA/DA & Transport	32,22,610
4	Chemicals & Consumables	46,37,555
5	Contingencies/ Miscellaneous	17,70,258
6	Overheads	25,00,000
7	Project Manpower Expenditure	30,76,179
8	Printing & Publicity	2,65,683
9	Convocation and examination & NIPER - JEE	9,00,000
10	Electricity & Water	21,02,215
11	M/s. Deloitte Consultancy	12,39,840
12	Computers & Internet	27,43,522
13	Furniture	8,59,363
14	Books & Journals	4,26,592
15	Equipments/ (Teaching aids)	1,08,50,605
16	Works (repairs & maintenance)	11,76,922
	Total	**5,83,73,066**

Instruments/Furniture procured during Academic year 2010-11

Total amount spent on procuring major lab equipment for departments and furniture for hostel during the academic year 2010-11 is ₹. **1,43,79,000/-**

S. No	Description of Item	Qty	Purchase Order Value	Department
1.	Laboratory water tap 3- way with central swan neck and side taps straight height of central tap screwed for ½ connection chromium plated	15 Nos.	14500.00	MC
2.	DESSICATOR VACCUM TARSON MAKE	1	16000.00	MC
3.	MELTING POINT APPARTUS	4 Nos.	12000.00	MC
4.	TARSON MAKE LAB MATERIAL	13 Nos.	21000.00	PA
5.	Single Bed Cots Model:ESCA Computer table Buddy with KBPT Blue colour cloth Chair Model:1007 Cup board slimline with locker, Metal perforated Chair black colour (1set 3 Chairs)	20 Nos. 20 Nos. 20 Nos. 20 Nos. 06 sets	76000.00	Furniture
6.	Digital Water Bath with Digtal temapature controller cum Indicator with 4-6 holes	03 Nos.	28000.00	MC
7.	High Vaccum Pump	01 No.	42000.00	MC
8.	Tablet Disintegration Test Apparatus 2 basket	01 No.	36000.00	PA
9.	Dissolution Test Apparatus with LCD display & Digital programming	01 No.	135000.00	PA
10.	Vaccum pump oil free	01 No.	13000.00	PA
11.	Microprocessor Controller Centrifuge	01 No.	52000.00	PA
12.	Friability Test Apparatus Unit with Double Aclylic Drums with Digital display	01 No.	23000.00	PA
13.	Tablet Punching Machine	01 No.	250000.00	PE
14.	Mini Stirrer Digital Overhead	04 Nos.	21000.00	PE
15.	Electrically operated grass mover	1 No.	30000.00	Garden
16.	Desktop computers Model HP/Hp3000 series	23 Nos.	771000.00	Comp. Lab
17.	Cyber scan PH Tutor pH meter Model: Euteh	1 No.	13000.00	PE
18.	Vaccum Desicators Tarson make Cat No.403040	2 Nos.	10000.00	MC
19.	Magnetic Stirrers Type MS-2 with hot plate Magnetic Stirrers Type MS-3 without hot plate	14 Nos. 5 Nos.	167000.00	MC,PT,PA
20.	Rotary evaporator & Rotavac valve etc Hei-vap units and valve control pump	3 Nos. 3 Nos.	531000.00	MC, PE
21.	Precision Weighing balance for chemical	2 Nos.	364000.00	MC PA
22.	Dimmerstats	10 Nos.	47000.00	MC
23.	Hot Air Oven	3 Nos.	123000.00	MC, PA,PT
24.	Vaccum pump	3 Nos.	74000.00	PC, MC
25.	Vaccum pump oil free	1 No.	20000.00	MC
26.	Laminarhood	2 Nos.	173000.00	PC

S. No	Description of Item	Qty	Purchase Order Value	Department
27.	Inverted Trinocular Microscope with phase contrast and fluorescene	1 No.	1885000.00	PC
28.	CO2 Incubator	1 No.	281000.00	PC
29.	Liquid Nitrogen storage containers of 60 litrs	2 Nos.	366000.00	PC
30.	Animal Weighing Balance	1 No.	91000.00	PC
31.	Refrigerated centrifuge for blood and biological samples	1 No.	633000.00	PC
32.	Ultra Low temperature freezer (-200C)	1 No.	287000.00	PC
33.	Autoclave Digital Vertical	1 No.	144000.00	PC
34.	Tray Dryer	1 No.	125000.00	PE
35.	Analytical Balance	1 No.	48000.00	PE
36.	SMF Batteries 12v, 42 Ah buy back basis	20 Nos.	42000.00	MC
37.	Dissolution Test Apparatus with LCD Display and Digital programming	2 Nos.	270000.00	PE
38.	Lyophilizer Lab scale	1 No.	545000.00	PE
39.	Automatic Blood Analyzer	1 No.	1365000.00	PE
40.	Air Cotton for Animal House		305000.00	Animal House
41.	Deep freeze Chest	1 No.	502000.00	PC
42.	Plethyscometer	1 No.	245000.00	PC
43.	Coating PAN with spray gun	1 No.	210000.00	PE
44.	Spray Dryer (Minor or Table Top)	1 No.	649000.00	PE
45.	Elevated plus	1 No.	388000.00	PC
46.	Homogenizer (Disperser) with Different shaft	1 No.	276000.00	PE
47.	Probe sonicator with different probes	1 No.	398000.00	PE
48.	Fluid Bed Dryer (FBD)	1 No.	784000.00	PE
49.	Lux Meter Taiwan Make Digital Electronic Veiwer Calipers	1 No 1 No	14000.00	PE
50.	Split Air conditioners for Animal House 3 Star Wall Mounting	8 Nos.	305000.00	Animal House
51.	Online UPS System 25 KVA Online UPS System 10 KVA	2 Nos 1 Nos	774000.00	Admin.
52.	Photocopy color copies Machine (A3 size) Make Xerox Model:WC-7428	1 No.	319000.00	Exam. cell
53.	Microwave OenModel: CE1031 DAT Make: Samsung	1 No	11000.00	MC
54.	Aquaguard Hi-flow water filter-cum-purifier	1 No.	9500.00	Hostel
55.	CO2 Cylinder and N2 Cylinder Commercial	2 Nos	45000.00	PC, MC

*MC-Medicinal chemistry; PA-Pharmaceutical Analysis; PC-Pharmacology&Toxicology; PE-Pharmaceutics

Activities of NIPER Hyderabad (2010-11)

The NIPER-Hyderabad's fourth academic year 2010-11 started with a grand orientation programme held on 2nd August, 2010 with the arrival of admitted students in central counselling at Mohali. In the orientation program, students were briefed about NIPER Hyderabad, faculty and the facilities. Also several experts from academia and industries interacted with students during the program. NIPER-H faculty have participated with great enthusiasm and conducted the courses which were not only confined to syllabus, but also trained for Communication, Personality Development Skills and Physical Fitness. The 3rd semester students resumed their research projects at various premier research organizations like IICT, NIN, USP, NIMS Hyderabad and in some leading pharmaceutical industry from August 2010. Examination cell of NIPER-H conducted all the examinations for M.S. (Pharm)1st semester and 3rd semester (Mid-Term and End-Semester examinations) and results were announced in a systematic way as per the academic calendar.

Second and fourth semesters were commenced after a small sabbatical from 3rd January 2011. Mid-Term project appraisal of 4th semester students was conducted in February 2011 and mid-Term examination for 2nd semester was scheduled in March 2011. End-Term examination of 2nd semester was held in the month of May 2011. The 4th semester students thesis and presentation was evaluated by expert committees and the entire process finished in June 2010. All the results for M.S (Pharm) degree were announced in the June 2011.

During the academic year 2010-11 NIPER-H organized several workshops and certificate programs very effectively and got the enormous response from various academic and industries from all over the India. The major certificate programme was a Workshop on Drug Discovery, Drug Design, Development, Delivery and Preclinical Studies (D4PS) organized in collaboration with Novartis in three modules during October and November 2010. Over 200 participants were trained well in this program. NIPER-H also organized a Summer Workshop on "Computer Aided Drug Design & Discovery (CAD3), in April 2011. More than 120 participants got hands on experience on computer aided drug design. Apart from these workshops, several international conferences and symposia were organized jointly with RSC London, CRSI India, IICT Hyderabad, during the academic year 2010-11. The faculty and the students were

encouraged in scientific publication and presentation to bring NIPER HYDERABAD under the scientific research platform. This led to several publications in reputed journals. NIPER-H have also organised several conferences and seminars. Faculty and students were sponsored for conferences such as IPC, IPS Bio Asia, etc.

NIPER Hyderabad has taken up strengthening the laboratory and library facilities. A large number of instruments have been installed and some are under the process of installation. A large number of books have been added to library database including 15662 titles. To hasten the literature search exhaustively about any scientific findings, NIPER Hyderabad provided Reaxys factility in NIPER campus.

In addition to providing quality education as its priority, NIPER Hyderabad has organized campus recruitments for the placement of students. Noted industries including Perrigo, Novartis, Suven, Data Monitor, Biocon, Pharmexcil, AMRI, SAPL, DMV, etc, came forward to visit NIPER Hyderabad and selected students for employment. NIPER-H has organized a few student welfare programmes like eye camps and sports events and cultural programmes during the academic year 2010-11. Apart from the academic and scientific programmes, NIPER-H students, faculty and staff have participated in social activities like blood donation, food and clothes donation to old age homes and plantation program to protect the environment.

Academic Calendar for the Year 2010-11
July to December, 2010

Activity	Dates
Commencement of Semester	2nd Aug 2010
Orientation and Departmental Introduction session of Faculty, Staff and Students	2nd Aug 2010
Submission of Semester Attendance of Students from 2nd Aug to 29th Sep 2010	30th Sep 2010
Mid-Term Examination	4th – 8th Oct 2010
Foundation Day Celebrations	**19th Oct 2010**
Presentation of Seminars (Ist Semester students)	15th – 26th Nov 2010
Faculty Assessment by Students	25th – 26th Nov 2010
Submission of Semester Attendance of Students	Up to 1st Dec 2010
Submission of Mid-Term Report on Thesis Work {3rd semester M.S. (Pharm.)}	7th – 8th Dec 2010
End-Semester Examination	6th – 17th Dec 2010
Mid-term Presentation of Thesis Work {3rd Semester M.S.(Pharm.)}	13th – 17th Dec 2010
Provisional Registration for January to June 2010 Semester	13th – 28th Dec 2010
Semester Break. The Students shall have the option to opt for Educational / Industrial Tour in place of Semester Break Winter Break for Faculty only (2 weeks)	25th – 30th Dec 2010 20th – 31st Dec 2010
Submission of Marks by Examiners (1st, 3rd Semester Masters)	Upto End of 1st week of Jan 2011
Declaration of Result (1st, 3rd Semester Masters)	Upto 17th Jan 2011

Academic Calendar for the Year 2010-11
July to December, 2010

Activity	Dates
Commencement of Semester	3rd Jan 2011
Assignment of 2nd Semester Masters Students to Advisors	2nd week of Jan 2011
Submission of Semester Attendance of Students	Upto 28th Feb 2011
Mid-Term Examination	7th – 11th Mar 2011
Constitution of SRCs for 2nd Semester Students	3rd Week of Apr 2011
Presentation of Seminar (2nd Semester students)	23rd April – 6th May 2011
Faculty assessment by the Students	5th – 6th May 2011
Provisional Registration July to December 2011 Semester	9th May – 23rd May 2011
Submission of Semester Attendance of Students upto 7th May 2011	Upto 9th May 2011
End-Semester Examination	16th – 27th May 2011
Summer Recess for Faculty only (03 weeks)	1st July – 22nd July 2011
Submission of Marks by the examiners (End Semester exam)	Up to 7th June 2011
Submission of Unbound Copy of Thesis {4th Semester M.S.(Pharm.)}	Up to 10th June 2011
Defence of Thesis {4th Semester M.S.(Pharm.)}	20th – 24th June 2011
Declaration of Result of End-Semester examination (2nd Semester)	Up to 20th June 2011
Submission of Bound Copies of the Thesis {4th Semester M.S.(Pharm.)}	Upto 30th June 2011
Declaration of Results {4th Semester Exams}	4th July 2011
Notification of Time Table for Aug-Dec, 2011 Semester	8th July 2011
Orientation of New Students	30th July 2011
Commencement of Semester	1st Aug 2011

Enrolment of Students in 2010-11

The total number of students who have been enrolled to pursue M. S (Pharm) in NIPER Hyderabad during academic year 2010-11

Department	No. of students Admitted (2010-11)	No. of Senior students	Total
Medicinal Chemistry	30	28	58
Pharmaceutical Analysis	14	15	29
Pharmacology and Toxicology	15	14	29
Pharmaceutics	16	-	16
Total	75	57	132

Academic Departments

1. Department of Medicinal Chemistry

The details of M.S. (Pharm) students intake in the academic year:

S.No.	Academic year	No. of Students	Present status
1.	Senior students	28	Passed out and well placed
2.	Admitted in 2010-11	30	Pursuing project work

The dept has got the approval for Ph.D Programme with intake of 3 students commencing from academic year 2011-12

Faculty Profile:

Dr. A. Krishnam Raju M.Sc., Ph.D.,
Course Coordinator
Medicinal Chemistry
Email: raju@niperhyd.ac.in
Contact No: +91 40 23073740;
Ext. 2007

Research Interests:
- Total Synthesis and biological evaluation of medicinally important natural products/natural product like compounds.
- Design and synthesis of biologically potent novel molecules
- Development of novel, efficient and environmentally friendly & synthetically useful methodologies

Prof. V. Peesapati M.Sc., Ph.D.,
Professor
Medicinal Chemistry
peesapati@niperhyd.ac.in
Contact No: +91-9391014579

Research Interests:
- Synthesis of Prostaglandin Endoperoxide Analogues having Potent Activity as Thromboxane receptor Antagonists.
- Synthesis of Novel Organic Monomers and Polymers having Non-linear Optical Properties.
- Synthesis of sperm Glycolysis inhibitor targeted at sperm in the epididymis.

Dr. Nagendra Babu Bathini M.Sc., Ph.D.,
Assistant Professor-Department of Medicinal Chemistry; Examination In-Charge, NIPER Hyderabad
Email: bathini@niperhyd.ac.in
Contact No: +91 40 23073740;
Ext. 2016: mobile: +91-9052328050

Research Interests:
- Total Synthesis of Biologically Important Natural Products and their hybrids, Mainly on anti microbial, anti cancer and anti depressant candidates
- Design and synthesis of Peptides and Peptidomimetics by using natural and unusual amino acids
- Development of novel and efficient methodologies and its exploitation in organic synthesis

Dr. Kolupula Srinivas M.Sc., Ph.D.,
Assistant Professor
Medicinal Chemistry
skolupula@niperhyd.ac.in
Contact No: +91-9177846399

Research Interests:
- Molecular Modeling / Computer Aided Drug Design
- Peptidomimetics/ Molecular Drug Delivery Systems
- Supramolecular Chemistry / Molecular Recognition
- Computational Photochemistry/ Reaction Mechanisms

Dr. N. Shankaraiah M.Sc., Ph.D.,
Assistant Professor
Medicinal Chemistry
Email: shankar@niperhyd.ac.in
Contact No: +91-9177597879

Research Interests:
- Design and Synthesis of Anticancer Agents
- Total Synthesis of Natural Products
- Combinatorial Chemistry
- Mechanistic Investigations of Organic Reactions by ESI-MS/MS
- Exploration of New useful Chemical Methodologies in Organic Synthesis

SUPPORTING STAFF	
Mr. Syed Mudabbir Feroze	Laboratory Assistant
Mr. Prathap Reddy M.	Resigned on 18-11-2011
Ms. Kavitha D.	Resigned on 30-11-2011

RESEARCH ACTIVITIES

(a) Medicinal Chemistry

Protein kinases catalyze the transfer of phosphate of ATP to specific hydroxyl group of serine, threonine, or tyrosine residue of cellular substrates including transcription factors, enzymes, etc. The human genomic study reveals that ~2% of total genome constitutes for protein kinases, further sequencing the genome has at least 518 distinct kinases and have been grouped in to ~20 families. The process of phosphorylation is normal in physiological condition however under the pathological conditions the protein kinases can be down regulated, leading to alterations in the phosphorylation and resulting in uncontrolled cell division, inhibition of apoptosis and other abnormalities leading to disease. A number of diseases including diabetes, inflammation, and cancer have been linked to unregulated protein kinase mediated signaling pathways.

The use of small-molecule inhibitors of protein function is one of the most efficient ways to treat human disease including malignancy. Kinases have become important molecular targets in cancer therapy and other diseases and they are considered as attractive targets for drug discovery next to G protein coupled receptors. The existing drug molecules such as Gleevec, Iressa and Tarceva have demonstrated prolific effects in controlling cancer with maximum safety. Kinases such as Abl, EGFR, VEGFR, PDGF, Src, B-raf, Aurora, etc, have become attractive targets for medicinal chemists in the discovery of novel drug molecules in cancer treatment. Most of the kinase inhibitors interact with kinase at the conserved ATP binding region (ATP competitive kinase inhibitors). This structural conservation in particular kinases is grouped into families which share similar structural features and folding and is often responsible for the untoward effect which may be due to cross interactions leading to fatalities.

Promiscuous inhibitors are those which suffer with side effects. An anticancer drug imatinib (STI571) with activity profile against five kinases (Abl, C-Kit, Lck, PDGFR, and CSFIR) has been found to exhibit potential cardiac toxicity. Similar kind of cardiovascular toxicities have been demonstrated by promiscuous kinase inhibitors such as SU11248 and Sorafenib (Bay 43-9006). The new kinase inhibitors may potentially enable the selective regulation of specific protein kinase associated with a particular disease but without affecting other protein kinase involved in normal physiology.

Various analogues containing urea group have been synthesized and evaluated for p38 kinase inhibitory activity. Some of the inhibitors have also exhibited potent in vivo anti-inflammatory activity. Molecular docking studies of urea derivatives have indicated similar binding interaction profile as depicted by the clinical candidate possessing p38 kinase inhibitory activity. The urea derivatives have been further modified to keto amides and the activities are awaited.

The common strategy of anticancer drug discovery has been to unravel the biological pathway by which an effective anticancer agent modulates and use this knowledge in the mechanism based drug discovery program. This has been achieved both through the natural product screening and chemical synthesis. The development of new therapeutic agents, as well as the identification of molecular probes for the study of the chemical/biological interfaces, is one of the major goals in biomedical research. In this context, the availability of large libraries of small organic molecules, covering as much chemical space as possible, is seen as the only means which guarantees potential modulation of the many biological targets that are ultimately being unveiled by genomics.

The renewed interest on podophyllotoxin as an anticancer drug started in 1950s and much work has been done by Sandoz Laboratories Basel, Switzerland. Three semisynthetic derivatives of podophyllotoxin, etoposide (VP-16), teniposide (VM-26) and etopophos, are widely used as anticancer drugs and show good clinical effects against several types of neoplasms including testicular and small-cell lung cancers, lymphoma, leukaemia, Kaposi's sarcoma, etc. However, several limitations such as myelosuppression, development of drug resistance and cytotoxicity towards normal cells, still exist. To a greater or lesser extent, this general profile applies to cytotoxic agents from a wide range of mechanistic classes e.g., alkylating agents, DNA intercalators, antifoliates, tubulin binders, topoisomerase inhibitors, this includes many of the best known and most widely used anticancer drugs, such as etoposide, doxorubicin, methotrexate and cisplatin etc.

Metabolic studies of podophyllotoxin have given some insights into its mechanism of action. VP-16 has been found to undergo O-demethylation by rat and mouse liver microsomes and purified rat liver cytochrome P-450 to produce the O-dihydroxy or catechol of VP-16. Several enzymatic systems viz. rat liver microsomes/NADPH, horse radish peroxidase/H2O2, prostaglandin synthase/arachidonic acid, myeloperoxidase/H2O2 metabolize VP-16 to produce capable of irreversible binding to proteins and DNA, which has been showed to be the quinone derived from the corresponding alcohol. The metabolism of VP-16 in isolated perfused rat liver has been studied, this finds the presence of glucoronides in the bile of VP-16 perfused liver indicating that VP-16 undergoes conjugation with glucoronic acid and the formation of the microisomer of VP-16 in the liver has also been observed. The N-demethyl compound is the major metabolite of dimethylamino etoposide (NK 611). Top-53 glucoronide is found to be the major metabolite of TOP-53, a new podophyllotoxin derivative.

Most of the lignans inhibit the polymerization of tubulin and DNA topoisomerase II enzyme. Studies on Structure-Activity Relationship (SAR) have shown that podophyllotoxin like compounds preferentially inhibit tubulin polymerization, which leads to arrest of the cell cycle in the metaphase. However, etoposide like compounds are potent irreversible inhibitors of DNA topoisomerase II and their action is based on the formation of nucleic acid-drug-enzyme complex, which induces single- and double-standed DNA breaks, as the initial step in a series of biochemical transformations that eventually lead to cell death. In continuation of above findings, the new 4β-anilino substituted podophyllotoxin congeners have been synthesized and are evaluating for their anticancer potential. These new compounds might inhibit better tubulin polymerization.

Drug design is an iterative process which begins when a chemist identifies a compound that displays an interesting biological profile and ends when both the activity profile and the chemical synthesis of the new chemical entity are optimized. Traditional approaches to drug discovery rely on a step-wise synthesis and screening program for large numbers of compounds to optimize activity profiles. Over the past ten to twenty years, scientists have used computer models of new chemical entities to help define activity profiles, geometries and reactivities.

One of the basic tenets of medicinal chemistry is that biological activity is dependent on the three-dimensional placement of specific functional groups (the pharmacophore). Over the past few years, advances in the development of new mathematical models which describe chemical phenomena and development of more intuitive program interfaces coupled with the availability of faster, smaller and affordable computer hardware have provided experimental scientists with a new set of computational tools. These tools are being successfully used, in conjunction with traditional research techniques, to examine the structural properties of existing compounds, develop and quantify a hypothesis which relates these properties to observed activity and utilize these "rules" to predict properties and activities for new chemical entities. The development of molecular modeling programs and their application in pharmaceutical research has been formalized as a field of study known as computer assisted drug design (CADD) or computer assisted molecular design (CAMD).

Identifying a protein's shape, or structure, is key to understanding its biological function and its role in health and disease. Illuminating a protein's structure also paves the way for the development of new agents and devices to treat a disease. Yet solving the structure of a protein is no easy feat. It often takes scientists working in the laboratory months, sometimes years, to experimentally determine a single structure. Therefore, scientists have begun to turn toward computers to help predict the structure of a protein based on its sequence. The challenge lies in developing methods for accurately and reliably understanding this intricate relationship.

Scientists know that the critical feature of a protein is its ability to adopt the right shape for carrying out a particular function. But sometimes a protein twists into the wrong shape or has a missing part, preventing it from doing its job. Many diseases, such as Alzheimer's and "mad cow", are now known to result from proteins that have adopted an incorrect structure. These

issues some extent can be addressed with the aid of molecular modeling software.

Computer simulations or molecular dynamics can be carried out in the hope of understanding the properties of assemblies of molecules in terms of their structure and the microscopic interactions between them. This serves as a complement to conventional experiments, enabling us to learn something new, something that cannot be found out in other ways. Computer simulations act as a bridge between microscopic length and time scales and the macroscopic world of the laboratory: we provide a guess at the interactions between molecules, and obtain `exact' predictions of bulk properties. The predictions are `exact' in the sense that they can be made as accurate as we like, subject to the limitations imposed by our computer budget. At the same time, the hidden detail behind bulk measurements can be revealed. Research activities include identification of small molecule inhibitors with the aid of molecular modeling software, understanding of electronic states and mechanistic study of reactivity of organic molecules.

The prion protein (PrP) is responsible for a group of neurodegenerative diseases called the transmissible spongiform encephalopathies. To study the intrinsic structural properties of three human prion protein (PrP) α-helixes and to analyze their stability, application of molecular dynamics simulations are in progress. Identification of small molecule inhibitors for prion protein with the help of molecular modeling tools are in progress.

Instrument Facilities at Medicinal Chemistry Department:

S.No	Name of the Instrument	Model	Qty.
1.	Ultrasonic bath	Power Sonic-405	1 No
2.	Rotary evaporator, Bath and Vaccum pump	Laborota 4000, Heizbad -HB digit,Rotavac valve	4 No. s
3.	Melting point apparatus	Stuart SMP3	01
4.	Ice Maker	M30 A	01
5.	Laboratory oven	BIO	01
6.	Magnetic Stirrers without hot plate	MS-I	20
7.	Magnetic stirrers with hot plate	MS-2	10
8.	DIMMERSTATS	8D-1P	10 Nos.
9.	Vacuum Desiccators	Saphire scientific / torson	12
10.	Microwave Oven	CE1041 DFB	01
11.	Heating Mantles	Hychem Laboratories/Rivera	**100mL-15; 250mL-04 500mL-02; 1.0L-04 2.0L-04; 3.0L-02**

List of Research Guides & Thesis Titles of 4th semester students in the academic year 2009-10

S.No.	Reg. No.	Name of the Student	Name of the Guide	Co- Guide (NIPER)	Project Title
1.	MC/2009/01	Libi Anandi Viswanathan	Dr. S. Chandrashekar	Dr. B. Nagendra Babu	Synthesis, Molecular modeling studies and Biological Evaluation of GLYX-13 analogues as NMDA Receptor Modulators
2.	MC/2009/02	Madishetti	Dr. K. Bhanuprakash	Dr. K. Srinivas	Supramolecular and Folding Effect on Regioselecitivity in Helically Folded Oligomers (Foldamers) : Molecular Modelling Study
3.	MC/2009/03	P. Triveni	Dr. Anthony Addlagatta	Dr. B. Nagendra Babu	11β-HSD1, A Target in Type 2 Diabetes and Obesity; Expression and Purification, Random Library Screening, Design, Synthesis and Evaluation of 1,2,3-Triazoles
4.	MC/2009/04	Nandkishor	Dr. D. K. Mohapatra	Dr. A. Krishnamraju	Click chemistry based synthesis & evaluation of new triazole fused benzodiazepine derivatives
5	MC/2009/05	P. Gopi Krishna	Dr. Javed Iqbal	Dr. A. Krishnamraju	Synthesis of Nitrogen Heterocycles using Metal-Catalyzed Cross-Coupling Reaction
6.	MC/2009/06	G. Madhavi	Dr. Raj Kumar Banerjee	Dr. N. Shankaraiah	Estrogen receptor mediated cationic liposomal gene delivery to cancer cells
7.	MC/2009/07	Yadav Upasana Rameshbhai	Dr. B. V. Subba Reddy	Dr. A. Krishnamraju	Towards Synthesis and Biological Evaluation of Homoserine Lactone Derivatives
8.	MC/2009/08	Shaik Haseena	Dr. Arabinda Choudary	Dr. N. Shankaraiah	Synergistic effect of Doxorubicin and Curcumin in Liposomal Formulation for use in Antiangiogenic Cancer Therapy & Design, Synthesis & Bioactivity Evaluation of Novel Histidinylated Cationic Amphiphiles
9.	MC/2009/09	P. Humani	Dr. Biswanath Das	Dr. A. Krishnamraju	Development of new synthetic methodologies for the construction of heterocycles, and their bio-evaluation, along with the synthesis of lower chiral fragment of the macrolide ll-z1640-2 (c292)
10.	MC/2009/10	Shahbaz Eqbal	Dr. Narahari Shastry	Dr. K. Srinivas	Identification of New Rhodanine Based Molecules as Anti Diabetic/Cataract Agents derived from the Epalrestat: Pharmacophore Modelling
11.	MC/2009/11	Nagarsenkar Atulya Ajit	Dr. Raji Reddy	Dr. B. Nagendra Babu	Synthesis and Evaluation of 5-Ethylidene-5H-furo[3,2-f]indol-6(7H)-one derivatives as Anti-Leukemic agents
12.	MC/2009/12	Vaishnav Jagrut Kamalesh	Dr. B. Nagendra Babu		Synthesis and Evaluation of novel 1,2,3-Triazoles and Substituted Cyclopentanoids as antimicrobial agents
13.	MC/2009/13	Aditya Sharma	Dr. P. Srihari	Dr. A. Krishnamraju	Synthesis of herbarumin i analogues

S.No.	Reg. No.	Name of the Student	Name of the Guide	Co- Guide (NIPER)	Project Title
14	MC/2009/14	Pankaj Sharma	Dr. V. J. Rao	Dr. K. Srinivas	Synthesis, in silico and in vitr Evaluation of Rhodanin Derivatives as Antidiabetic Agents
15	MC/2009/15	Priya Pandey	Dr. K. Srinivas	Dr. V. J. Rao	Application of Baylis-Hillma Reaction : Towards the Synthesi of New Pyridopyrimidin Derivatives
16	MC/2009/16	Patel Ashish Kumar Manilal	Dr. Saibal Das	Dr. B. Nagendra Babu	Synthesis and Bioevaluation o triazole derivatives of 2-cyan pyrrolidine: as Anti-diabeti Agents
17	MC/2009/17	Chourasiya Sumit Sunil	Dr. K. Suresh Babu	Dr. N. Shankaraiah	Phenylpropanoids from th rhizomes of Alpinia galanga Isolation, Synthesis & Cytotoxicit Evaluation
18	MC/2009/18	Archana Yadav	Dr. V. J. Rao	Dr. K. Srinivas	Design, synthesis an characterization of biologicall active 4- thiazolidinon derivatives
19	MC/2009/19	K.P. Siraj	Dr. N. Shankaraiah		Synthesis and Biological Evaluatio of β-Carboline Derivative a Anticancer Agents
20	MC/2009/20	Ravi Kumar Kapavarapu	Dr. Javed Iqbal	Dr. A. Krishnamraju	Structure based virtual screenin approach by molecular dockin method of azaindole molecules i humansirtuin 1
21	MC/2009/21	A. Arun Kumar	Dr. G.V.M. Sarma	Dr. N. Shankaraiah	Synthesis and Bioevaluation o Cyclictetrapeptide Analogues a HDAC Inhibitors For Anticance Therapy
22	MC/2009/22	Anitha Pidimarthy	Dr. S. Chandrashekar	Dr. B. Nagendra Babu	Synthesis of novel Galanthamine analogues as acetylcholinesteras inhibitors
23	MC/2009/23	B Narasimha Rao	Dr. V. Swaroop Kumar	Dr. A. Krishnamraju	Synthesis of some pyrazole derivatives as cox inhibiting nitri oxide donors
24	MC/2009/24	Kamble Prakash Gyanoba Rao	Dr. Ahmed Kamal	Dr. N. Shankaraiah	Design and Synthesis of β Carboline-Pyrrolobenzodiazepine Hybrids and their DNA-Bindin Affinity
25	MC/2009/25	Pallavi Omkanth Dhale	Dr. P. Radha Krishna	Dr. N. Shankaraiah	Design, synthesis and biologica evaluation of substituted Pyrroles
26	MC/2009/26	J. Chudasama Karmrajsinh	Dr. N. Shankaraiah		Design and Synthesis of New Tetrahydro-β-Carboline Analogues as Anticancer Agents
27	MC/2009/27	Vinay Maloth	Dr. Subhash Ghosh	Dr. K. Srinivas	Chemical modification o progesterone and testosterone for the development of anti-cancer therapeutics
28	MC/2009/28	Yemuna Denuka	Dr. K. Srinivas	Dr. Md. Ariffuddin	Design ,Synthesis, Characterization and Biological Activity of Schiff's bases derived from 2-Chloro-3-Formylquinoline and its Metal Complexes

2.Department of Pharmaceutical Analysis

The details of M.S. (Pharm) students intake in the academic year:

S.No.	Academic year	No. of Students	Present status
1.	Senior students	15	14 Passed out and one drop out
2.	Admitted in 2010-2011	14	Pursuing project work

Faculty Profile:

Dr. R Srinivas M.Sc., Ph.D.,
Chief scientist, IICT and Course Coordinator
Pharmaceutical Analysis
Email: srini@niperhyd.ac.in
Contact No: 9866652916

Research Interests:
- Gas-phase ion chemistry of reactive intermediates and elusive molecules of fundamental importance.
- Organic and biological mass spectrometry,
- structure elucidation, mechanistic studies and differentiation of isomers by mass spectrometric techniques

Dr. S. Gananadhamu M. Pharm., PhD.,
Assistant Professor,
Pharmaceutical Analysis
Email: gana@niperhyd.ac.in
Contact No: 91-9866906386

Research Interests
- Impurity profiling of drugs
- Bioanalytical method development
- Luminescence based analytical methods
- Stability testing of drugs

Dr. M.V. Narendra Kumar Talluri M.Sc., Ph.D.,
Lecturer
Pharmaceutical Analysis
Email: narendra@niperhyd.ac.in
Contact No: +91-9652348461

Research Interests :
- Impurity Profiling and Metabolic profiling of Drugs
- Stability studies/drug-drug interactions
- Bio-analytical methods- DMPK
- Method development and validation for Drugs
- Standardization of Herbal Drugs

Dr. N. Satheesh Kumar M. Pharm., PhD.,
Lecturer
Pharmaceutical Analysis
Email: satish@niperhyd.ac.in
Contact No: +91-9652766320

Research Interests:
- Method development & validation for various drugs & API
- Bioanalytical method development & Stability Studies
- In vitro & in vivo pharmacological screening of various natural product isolates for AChE, anti allergic etc.
- Targeted drug delivery system

SUPPORTING STAFF	
Mrs. Padma Sri Patel	Project Assistant
Mr. Subramanyam .D	Project Assistant

(a) **Instrument facilities at Pharmaceutical Analysis Department:** Pharmaceutical Analysis department has well equipped laboratories and sophisticated analytical instruments to train the students on the latest techniques in pharmaceutical analysis. The department has the following instruments

HPLC: Prominence, Shimadzu, Japan

GC: GC-2014, Shimadzu, Japan

FTIR: Spectrum RXI, PerkinElmer, USA

UV/Visible spectrophotometer: V-650, Jasco, USA

Automatic digital polarimeter: Labindia,

Dissolution test apparatus: DS 8000, LABINDIA, India

Stability Chamber: Remi elektrotechnik Ltd., India

Water purification system for HPLC: Milli-Q, Millipore, USA

Analytical balances: Sartorius, Germany

The institute has strong support from mentor institute Indian Institute of Chemical Technology, Hyderabad for other advanced instruments like

Preparative HPLC: LC-8A, Shimadzu, Japan

HPTLC: CAMAG 4.05, Switzerland

CE: Prince CE 460-The Netherlands

LC-MS: Quattro LC, Micromass, UK

GC-MS: 6890 NGC with 5973 inert MSD, Agilent Technologies, USA

MALDI-TOF: KOMPACT SEQ, KRATOS, UK

ESI-QTOF: Q STAR XL Hybrid, Applied Biosystems, USA

NMR: UNITY-400, Varian, Switzerland, etc.

b) Research activities at Department of Pharmaceutical Analysis

The Pharmaceutical Analysis department is actively taking part in the following research activities

i) Drug impurity profiling

Drug impurity profiling, i.e. identification, structure elucidation and quantitative determination of impurities and degradation products in bulk drug materials and pharmaceutical formulations is one of the most important activity in modern pharmaceutical analysis. The reason for the increased importance of this area is that unidentified, potentially

toxic impurities are health hazards and in order to increase the safety of drug therapy, impurities should be identified and determined by selective methods.

The main focused research areas of the department are separation and determination of impurities of known structure, off-line and on-line chromatographic - spectroscopic methods for the structure elucidation of impurities and degradation products as well as some analytical aspects of enantiomeric purity of chiral drugs.

ii) Stability studies

Stability indicating methods are quantitative test methods that can detect changes with time of drug substances and drug products. Information of type and amount of degradation products over time is important for safety of drugs. The use of such methods is appropriate when there is an intention to document drug substance or drug product stability. It is immaterial if such documentation is generated to support a regulatory submission such as an Investigational New Drug Application (IND), Drug Master File (DMF) or an (A)NDA or generated to satisfy cGMP requirements for a non-application drug substance or drug product.

iii) Analysis and standardization of herbal drugs

When herbal medicines are concerned, there are always hundreds of components and many of them are in minute quantities. On the other hand, there usually exists variability within the different and even the same herbal materials. Consequently, to obtain reliable chromatographic fingerprints that represent pharmacologically active and chemically characteristic components is not a trivial task. The performance of a chromatographic fingerprint obtained is closely dependent on the chromatographic separation degrees and concentration distribution of all chemical components in the herbal medicine investigated. Furthermore, the recent approaches of applying hyphenated chromatography and spectroscopy such as high performance liquid chromatography-diode array detection (HPLC-DAD), gas chromatography-mass spectroscopy (GC-MS), HPLC-MS and HPLC-NMR could provide the additional spectral information, which will be very useful for the qualitative analysis and even for the on-line structural elucidation.

iv) Drug metabolism studies

Metabolite identification studies provide critical information on drug candidates, these studies have typically been reserved for compounds late in the development phase. These studies are not amenable to high throughput as each compound will give a different metabolic profile, and evaluation of the data can be a lengthy and labor-intensive process. Traditional studies require radio labelled compounds, synthetic standards of potential metabolites, and sophisticated analytical instrumentation. However, with the recent advances in analytical technology and software programs, metabolite identification studies are now playing a pivotal role in the discovery phase of new drug entities. Early identification of metabolic "hot spots" in a particular structural series provides valuable information to the medicinal chemists and can drive the progression of chemical structures in a particular therapeutic program. In addition, early characterization of potentially active or toxic metabolites can direct a program to more potent and safe recommendation candidates. The department focuses on small molecule applications.

v) Bioanalytical method development

The development of sound bioanalytical methods is of paramount importance during the process of drug discovery and development culminating in a marketing approval. Bioanalysis, employed for the quantitative determination of drugs and their metabolites in biological fluids, plays a significant role in the evaluation and interpretation of bioequivalence, pharmacokinetic and toxicokinetic studies. Selective and sensitive analytical methods for quantitative evaluation of drugs and their metabolites are critical for the successful conduct of pre-clinical and/or biopharmaceutics and clinical pharmacology studies. The determination of drug concentrations in biological fluids yields the data used to understand the time course of drug action, or pharmacokinetics, in animals and human and is an essential component of the drug discovery and development process.

List of Research Guides & Thesis Titles of 4th semester students in the academic year 2009-10

S.No	Reg. No.	Name of the Student	Name of the Guide	Co- Guide (NIPER)	Project Title
1.	PA/2009/02	Koteswara Rao Thommandru	Dr. K.V. Surendranath	Prof. Nalini Shastri	Validated Stability Indicating RP-HPLC Assay Method for Simultaneous Determination of Naproxen and Esomeprazole magnesium and Validated Stability Indicating RP-HPLC Assay Method for the Determination of Naproxen and its Related Impurities
2.	PA/2009/03	Patel Prashant Kumar Pravinbhai	Dr. K.V. Surendranath	Prof. Nalini Shastri	Spectrophotometric & Stability Indicating RP- HPLC assay method for simultaneous determination of fixed dose combination of Brimonidine Tartrate and Timolol Maleate
3.	PA/2009/04	Vasoya Milan Mohanbhai	Dr. Amit Khanna	Prof. Nalini Shastri	Application of Quality by Design Approach in Development of Stability Indicting Assay Method for Fixed Dose Combination of Lamivudine and Zidovudine.
4.	PA/2009/05	Amit Kumar Jain	Dr. Narendra Kumar Talluri	—	Stability indicating RP-HPLC method and spectrophotometric method development and validation for simultaneous determination of chlorzoxazone and ibuprofen in bulk drug & in marketed formulation.
5.	PA/2009/06	Naveen Reddy Kandimalla	Dr. Narendra Kumar Talluri	—	Stability indicating RP-HPLC & GC methods for determination of Zotepine in presence of its degradants and identification of potential degradants by LC-MS/MS

S.No	Reg. No.	Name of the Student	Name of the Guide	Co- Guide (NIPER)	Project Title
6.	PA/2009/07	Kalariya Pradipbhai Durlabhagi	Dr. R. Srinivas	Dr. S. Gananadhamu	Application of Chemometric tools for Simultaneous Estimation of Moxifloxacin HCl and Ketorolac Tromethamine in Bulk and Formulation by Spectrophotometric and RP-HPLC Methods & Forced Degradation Study of Ketorolac Tromethamine by LC-MS/MS
7.	PA/2009/08	Patel Prinesh Nanubhai	Dr. V. Swaroop Kumar	Dr S Ramakrishna	Development and validation of bioanalytical method for simultaneous estimation of Sitagliptin and Dasatinib in rat plasma by LC-MS/MS: Application to pharmacokinetic study and Stability Indicating RP- HPLC method for Sitagliptin
8.	PA/2009/09	Mahajan Rupali Suresh	Prof. Nalini Shastri	—	RP HPLC Method development and validation for selected drugs and Derivatization and BSA study of Racecadotril by fluorometric analysis
9.	PA/2009/10	Deepak Namdev	Dr. R. Srinivas	Dr. S. Gananadhamu	Simultaneous estimation of Tamsulosin hydrochloride and Dutasteride & Stability Indicating RP-HPLC Method Development For Tamsulosin Hydrochloride And Characterization of Degradation products by LC-MS/MS
10.	PA/2009/11	Jadav Nirav Natvarlal	Prof. Nalini Shastri	—	Development and validation of stability indicating HPLC Method for Trandolapril & Verapamil hydrochloride combination and drug stability enhancement by cyclodextrin complexation method.
11.	PA/2009/12	Anitha Kalyankar	Dr. R. Nageswara Rao	Dr. Narendra Kumar Talluri	Development and validation of analytical methods for quality control of synthetic and herbal drug formulations
12.	PA/2009/13	C. Rohit	Dr. K. Srinivas	—	Computational Design of α-Helix Mimetic Small molecular carriers as Novel Drug Delivery System
13.	PA/2009/14	Bhukya Vijay Nayak	Dr. B. Sreedhar	Prof. Nalini Shastri	Preparation, Characterization and Dissolution Behaviour of Surface Solid Dispersion of Valsartan & Simultaneous Estimation of Valsartan and Simvastatin Using RP-HPLC and Spectrophotometric methods
14.	PA/2009/15	K.V. Lalitha	Dr. R. Nageswara Rao	Dr. Narendra Kumar Talluri	Bio-Analytical Method Development and Validation for Simultaneous Estimation of Sitagliptin Phosphate and Metformin HCl in Rat Plasma by Hydrophilic Interaction Liquid Chromatography & Simultaneous Estimation of Alfuzosin HCl and Dutasteride by Spectrophotometric Methods.

Academic Departments

3.Pharmacology and Toxicology

The details of M.S. (Pharm) students enrolled in the academic year:

S.No.	Academic year	No. of Students	Present status
1.	Senior students	14	Passed out and well placed
2.	Admitted in 2010-11	15	Pursuing project work

The dept has got the approval for Ph.D Programme with 3 students commencing from academic year 2011-12

Faculty Profile:

Dr. S. Ramakrishna M. Pharm., PhD.,
Principal Scientist-IICT &
Course Coordinator
Pharmacology & Toxicology;
Pharmaceutics
Email: sistla@niperhyd.ac.in
Contact No: +91-9849109339

Research Interests:

- Working in the areas of nanoparticle based novel drug delivery systems
- In vitro and in vivo pharmacological screening
- Pharmacokinetics of NCEs and drugs from the NDDS and regulatory toxicology of drugs.

Mr.Venu Talla M. Pharm., (Ph.D)
Lecturer
Pharmacology and Toxicology
Email: tallavenu@niperhyd.ac.in
Contact No: +91-9885421762

Research Interests:

- In-vitro and in-vivo models to screen NCE for anticancer activity
- Clinical Pharmacokinetic Studies and adverse drug reactions monitoring
- Drug interaction studies

Mr. Sunil Tripati
Lecturer

Resigned on 27-07-2011

Supporting Staff

Mrs. U. Jayalakshmi	Project Assistant
Mr. D. Krishna Kishore	Project Assistant

Research Activities

The major research areas of the department are

1) Identifying the novel drug targets in the management of pain
2) Scientific validation of different Indian traditional medicinal plants for tracing anti-arthritis, anti-convulsant and anti-diabetic activities.
3) Screening of new chemicals entities for anti-cancer activity.
4) Asses the combination drug therapy in disorders like hepatic encephalopathy, hepatitis and diabetes mellitus.

DIABETIC COMPLICATIONS:

Major complications of diabetes in human are of two types (Type I & II) and they are again subdivided as follows:

1. ACUTE COMPLICATIONS: a) Hyperglycaemia; b) Ketoacidosis

2. CHRONIC COMPLICATIONS: a) Neuropathy; b) Nephropathy; c) Cardiovascular complications (Atherosclerosis, Myocardial Infarction, Hypertension); d) Gastro intestinal complications (Oesophageal complications, Gastric complications); e) Retinopathy.

Diabetes may be produced experimentally by means of surgery, viral infection or the administration of various hormones and chemical agents. Spontaneous diabetes is a common occurrence in many animal species. The most common diabetes syndromes in animals occur in the context of obesity, hyperinsulinemia and insulin resistance. Many such syndromes remit spontaneously. Dietary restriction and weight reduction effectively reverse some of these syndromes, but in other cases only partial correction of the syndrome occurs. Diabetes in lean animals is less common. The diabetes of lean animals is more frequently characterized by hypoinsulinemia, ketosis and insulin dependence than is the case with obese animals. Genetically 'knock out' mice are produced that will disrupt the normal gene. This is then given to the pseudo pregnant mice to produce desired type of diabetes in the mice.

STZ (Streptozotocin) and alloxan induced models are chemically employed models in rat for diabetes. Streptozotocin is a nitrosurea derivative isolated from Streptomyces Achromogenes with broad-spectrum antibiotic and anti-neoplastic activity. A large dose of STZ produces diabetes but it may be due to side effects. Thus, multiple smaller doses are given, which may lead to insulitis and β-cell death.

Alloxan and the product of its reduction, dialuric acid, establish a redox cycle with the formation of superoxide radicals. These radicals undergo dismutation to hydrogen peroxide. Thereafter highly reactive hydroxyl radicals are formed by the Fenton reaction. The action of reactive oxygen species with a simultaneous massive increase in cytosolic calcium concentration causes rapid destruction of β cells.

Major emphasis of work is concentrated in dealing with the complications of diabetes these days. Identifying the pathogenesis of the complication also is a very important in order to go for further study. These can be checked in vitro using organ tissue to check particular complication. Organ bath studies using a diabetic induced rat or mice may lead to many possibilities. For example, using specific beta adrenoreceptor agonists and antagonists, on the stomach fundus tissue of a diabetic induced rat model, it can be identified that due to neuropathy in diabetes, it damages beta adrenoreceptors present in the stomach fundus. Similarly it can be done on all possible tissues of the complicated areas available and then can go to further studies for cell lines and in vivo etc.

A study on evaluation of antidiabetic activity of thienopyridine derivatives observed that BN-13 and BN-14 were found to posses maximum antidiabetic activities in the in vivo starch loaded models in rats, by inhibiting alpha glucosidase enzyme. Evaluation of suitable type-II diabetes model to investigate diabetic kidney disease is being worked in order to identify some complications related to nephropathy and potential therapeutic intervention. Few potential

antidiabetic drugs like Iptakalim sulfonylurea are being compared and evaluated. Effect of atorvastatin alone and in combination with curcumin/ berberine in metabolic abnormalities in type II diabetic rats is being observed.

Pain

Pain is an unpleasant subjective sensation which is having a complex mechanistic pathways like involvement of many pain mediators such as bradykinin; neurotransmitters like serotonin, local hormones like histamine many peptides and ion channels. The role of Calcium channel in pain was extensively studied by using formalin induced models of pain; as a result of this there is a need to understand the mechanism by which the pain is produced. The institute is trying to understand the science to explore a new drug target for the relief of pain.

Rheumatoid arthritis (RA)

RA is a chronic and progressive inflammatory disorder, characterised by synovitis and severe joint destruction. The pathogenesis of RA is a complex process, involving synovial cell proliferation and fibrosis, pannus formation, and cartilage and bone erosion. This process is mediated by an interdependent network of cytokines, prostanoids and proteolytic enzymes. Pro-inflammatory cytokines, such as interleukin-1 (IL-1) and tumour necrosis factor-lpha (TNF-α), are central mediators in RA. We are scientifically validating different traditional medicinal plants like Sarcostemme acdium etc. Many of these traditional drugs are showing anti-rheumatoid action by modulating the signalling mechanisms of immune system. The work in the department involves identifying the anti rheumatoid drug from Indian traditional plants. A multi-target in-vitro test has been developed. However a few plants are showing anti-rheumatoid action in multi-assay screens.

Hepatic encephalopathy

Liver disease can manifest in many different ways. Characteristic manifestations include jaundice, cholestasis, liver enlargement, portal hypertension, ascites, liver failure and hepatic encephalopathy. Hepatic encephalopathy continues to be a major clinical problem and the current decade has not witnessed major therapeutic breakthroughs in this area. Hepatic encephalopathy is condition in which deterioration of brain function due to build up of toxic substances normally removed by the liver. The department is aimed to assess the effectiveness and safety of L-Ornithine-L-Aspartate in the management of hepatic encephalopathy in CLF patients. We are using a method to perform a meta-analysis of randomized controlled trials of LOLA therapy for hepatic encephalopathy.

Alcoholic Hepatitis

Alcohol hepatitis is an acute or acute-on-chronic hepatic inflammatory response syndrome, which is art of the spectrum of diseases that result from alcohol-induced liver injury, ranging from the most common symptomatic fatty liver to fulminant hepatitis and cirrhosis in the long term. However, it is difficult to predict the clinical response in an individual patient, as only a minority of individuals consuming large amounts of alcohol develop alcoholic hepatitis. Although many individual studies are available on the efficacy of pentoxyfylline and prednisolone in the treatment of severe alcoholic hepatitis, no study has compared the two drugs head to head in randomised controlled study. We are comparing the efficacy of

pentoxifylline and prednisolone in the treatment of severe alcoholic hepatitis, and evaluating the role of different liver function scores in predicting prognosis.

Screening of new chemical entities as Anti-Cancer drugs

Cancer is term that encompasses a complex group of more than 100 different types of cancerous diseases. Cancer can affect just about every organ in the human body. Many people are surprised to learn that cancer can affect parts of the body like eyes and the heart. Each type of cancer is unique with its own causes, symptoms, and methods of treatment. Like with all groups of disease, some types of cancer are more common than other. The institute is committed to screen the new chemical entities for anticancer activity with the collaboration of mentor institute, IICT Hyderabad. This screening utilizes different human tumour cell lines, representing leukaemia, melanoma and cancers of the lung, colon, brain, ovary, breast, prostate, and kidney. The aim is to prioritize for further evaluation, synthetic compounds or natural product samples showing selective growth inhibition or cell killing of particular tumour cell lines. This screen is unique in that the complexity of a different cell line dose response produced by a given compound results in a biological response pattern.

The details of laboratories available in the department

A. Pharmacological screening laboratory

B. Bio analytical instrumentation laboratory.

C. Biochemistry laboratory

D. Isolated tissue experimentation laboratory

E. Cell Culture laboratory.

A. Pharmacological Screening Laboratory:

Rota rod for mice and rats, gripstrength meter, tail flick analgesia meter, electro convulsive unit, hot and cold plate etc. instruments with very good specifications are available to measure various CNS parameters. The details of these screening equipment are mentioned below

S.No.	Name of the instrument	Make	Qty
1.	Rota Rod Apparatus for Mice	UgoBasile	01
2.	Rota Rod Apparatus for Rat	UgoBasile	01
3.	Grip strength meter	Columbus	01
4.	Tail flick analgesia meter	Panlab	01
5.	Electro Convulsion Unit	UgoBasile	01
6.	Hot and Cold Plate	UgoBasile	01
7.	Elevated plus maze with Any-maze video tracking system	Stoeltinz, USA	01
8.	Plethysmometer	Panlab	01

B. Bio analytical instrumentation Laboratory:

We are having analytical instruments like Gel electrophoresis with imaging for qualitative and quantitative analysis of proteins and nucliec acids. UV-Visible Spectrophotometer along with the basic requirements like Vortex shaker, dancing shaker, test tube rotator etc..,

S.No.	Name of the instrument	Make	Qty
1	Gel electrophoresis with imaging	Biorad	01
2	UV-VIS Spectrometer	Jasco	01

C. Biochemistry laboratory

In this lab we have Automatic Blood analyzer for estimation of various biochemical parameters. Recently Automatic Blood analyzer was installed in pharmacology lab to carry out various biochemical parameters like SGOT, SGPT, Alkaline phosphatase etc.., Nearly 88 parameters can be studied simuntaneously in a short period of time with minimal human assistance. The sample required is very less (3ul to 1ml) and the results are reproducible. These measured properties of blood and other biological fluids may be useful conducting clinical studies.

S.No.	Name of the instrument	Make	Qty
1	Automatic Blood Analyzer	Siemens	
		Model: Xpand plus	01

D. Isolated Tissue Experimentation Laboratory:

We are having conventional double unit organ bath with simple lever along with the kymographs to carry out the basic isolated tissue experiments. Along with this we are also having double unit organ bath of Ugo basile with data capsule having two transducers, software. Using this instrument we can trace the isolated tissue responses without kymograph and rotating drum. The response looks like chromatograms which can be taken as printed document.

Isolated tissue and organ preparations allow researchers to investigate pharmacology of various drugs in a controlled environment using a variety of tissues and organs including smooth muscle, skeletal muscle, cardiac muscle, gastrointestinal and urogenital tissue samples and arterial rings.

S.No.	Name of the instrument	Make	Qty
1	Student Kymographs along with organ baths and levers	Inco	14
2	Transducers	Ugo Basile	02

E. Cell Culture laboratory:

Very recently cell culture laboratory is established in pharmacology department with equipment like trinocular microscope with fluoroscence, luminiscence specifications. It can be used for cell culture techinques and histopathology studies. In addition to this, CO_2 incubator for growing and incubating different cell lines, autoclave unit for moist heat sterilisation of quipment and media used in cell culture techniques, Laminar air flow for aseptic transfer, Vertical freezer (-20°C) for preserving reagents and media, Liquid nitrogen containers for storage and transport of cell lines and Refrigerated centrifuge for centrifugation of biological samples at low temperature.The details of these equipments are mentioned below

S.No.	Name of the instrument	Make	Qty
1.	Microscope	Nikon, Model:TiU	01
2.	Laboratory Incubators	IB-21F Jeiotech	02
3.	CO_2 Incubator	Nauire	01
4.	Hot air oven	Osworld Scinetific	01
5.	Autoclave	Eqitron	01
6.	Laminar air flow	Laminar Flow Systems	02
7.	Liquid Nitrogen Container	Char Industries	02
8.	Ultra low temperature Freezer	Hoshizaki Model:HFE-77B-SHD	01
9.	Table Top Refrigerated Centrifuge	Thermo electron	01

The details of other supplementary equipments available at pharmacology laboratory

S.No.	Name of the instrument	Make	Qty
1	Dancing shaker	Tarson	01
2	Test tube rotator	Tarson	01
3	Vortex shaker	Tarson	02
4	Micro Centrfuge	Spinwin	02
5	Weighing balance 0.1mg-220g	Sartorious	01
6	Weighing balance 0.1mg-220g	Mettler Toledo	01
7	Weighing balance 0.1g-8200g	Sartorious	01
8	High Vacuum Pump Rotary	Superfit	01
9	Magnetic stirrers with Hot plate	Deepali	02
10	Magnetic stirrers without Hot plate	Deepali	02
11	Refrigerator	Godrej	01
12	Digital pipettes of different volumes	SD fine	14

About Animal House:

Renovation of animal house has been done as per the CPCSEA guidelines. It is inspected by CPCSEA nominee waiting for registration to do animal experimentation. The Animal House Facility is located in an exclusive, specially designed block in one corner to Pharmacology lab. The rooms for rodents, which are maintained under controlled conditions for temperature, humidity, air pressure and dark & light cycles along with the service areas (washing, autoclaving and animal feed) and quarantine room. In addition to this we are having two animal experimentation rooms and one necropsy room along with the personnel change room

All activities of the Animal Facility are carried out as per standard operating procedures (SOPs). The Laboratory Animal Facility maintains the records of day to day activities, maintenance and experimentation records of the animals as per the statutory requirement of CPCSEA. Well experienced technical staff of the Animal House assists the students in their animal experiments, and are responsible for proper maintenance of this key facility of the Centre. In animal house, we are having air curtains to separate two spaces from each other side there by block insects and create an invisible barrier to control temperature , poly carbonate cages for keeping animals, stainless steel racks to keep the animal cages, Aquaguard water purifier to provide pure drinking water to the animals, etc..,

S.No.	Name of the instrument	Make	Qty
1	Poly carbonate cages	Vishnu traders	100
2	Stainless steel racks	Vishnu traders	05
3	Superslim Air curtains	Euronics	06
4	Aquaguard purifier	Eurekha forbes	01
5	Animal Weighing balance	Sartorious; Model:BSA8201	01
6	Horizontal freezer for animal carcass	Thermo Fisher	01

View of inside animal house

Horizontal freezer for animal carcass

List of Research Guides & Thesis Titles of 4th semester students in the academic year 2009-10

S.No	Reg. No.	Name of the Student	Name of the Guide	Co- Guide (NIPER)	Project Title
1.	PT/2009/01	Dhommati Lalitha	Dr. S. Ramakrishna		Evaluation of anti proliferative and apoptotic effect of trans cinnamaldehyde on human colon cancer in vitro
2.	PT/2009/02	Gantasala Mahesh Kumar	Dr. G. Bhanu Prakash Reddy	Dr. S. Ramakrishna	Type 2 Diabetes induced complications (Cataract): Studies with animal models
3.	PT/2009/03	P. Venkata Ramakrishna	Dr. P. N. Rao	Dr. S. Ramakrishna & Dr. M. Sasikala	Putative Role of Visfatin in Non-Alcoholic Fatty Liver Disease (NAFLD) A Proof of Concept – Experimental Animal Study
4.	PT/2009/04	Sruthi Gandepalli	Dr. S. Ramakrishna		Effect of astaxanthin, a carotenoid on cisplatin induced oxidative stress and nephrotoxicity
5.	PT/2009/05	P. Raja Durai	Dr. S. Ramakrishna		Evaluation of wound healing potential of Tetrahydrocurcumin in Wistar rats
6.	PT/2009/06	S.V.S. Guptha Mulukuri	Dr. B. Dinesh Kumar	Dr. S. Ramakrishna	Evaluation of Polyherbal formulation (NIN / OS/ 02) as potential Antiosteoporotic activity
7.	PT/2009/07	Tanmaya Kumar Bastia	Dr. Sanjay Kumar Banerjee		Find out the role of epigenetic pathway in Cardiac Hypertrophy and to reduce the Phenotype with pharmacological agents
8.	PT/2009/08	H. Kachhela Nisit Kumar	Dr. S. Ramakrishna	Mr. T. Venu	Evaluation Of Protective Effect Of Terminalia chebula Against Doxorubicin Induced Cardiotoxicity and Genotoxicity
9.	PT/2009/09	Hillal Rajesh Dattatray	Dr. P. Uday Kumar	Dr. S. Ramakrishna	Effect of mangifera indica alone and in a polyherbal formulation (ao-8) against doxorubicin induced cardiotoxicity
10.	PT/2009/10	Bagul Pankaj Khushal	Dr. Sanjay Kumar Banerjee		Find out the role of epigenetic pathway in diabetic cardiomyopathy and to reduce phenotype with pharmacological agents
11.	PT/2009/11	B. Divya	Dr. Manika Pal Bhadra	Dr. S. Ramakrishna & Dr. Janaki Ramaiah	Biological Evaluation of Benzothiazole analogues as MAP kinase pathway inhibitors for anticancer activity using invitro assays
12.	PT/2009/12	K. Deepthi	Dr. Shashivardhan Kalivendi	Dr. S. Ramakrishna	Development of cellular model for assessing anti-tubulin activity
13.	PT/2009/13	Vijay Elipay	Dr. Srigiridhar Kotamraju	Dr. S. Ramakrishna	Role of Mitochondrial Generated Oxidative Stress in Vascular Dysfunctions
14.	PT/2009/14	Ghanshyam Meena	Dr. S. Ramakrishna	Mr. T. Venu	Evaluation Of Chemopreventive Effect Of Terminalia Chebula Extract Against 1,2 Dimethyl hydrazine (DMH) Induced Colon Cancer In Wistar Rats

Academic Departments

4. Department of Pharmaceutics

The details of M.S. (Pharm) students intake in the academic year: The department was started from the academic year 2010-11 at NIPER-Hyderabad

S.No.	Academic year	No. of Students	Present status
1.	2009-2010	-	-
2.	2010-2011	16	Pursuing project work

The dept has got the approval for Ph.D Programme with 3 students commencing from academic year 2011-12

Faculty Profile:

Dr. S. Ramakrishna M. Pharm., PhD.,
Principal
Scientist-IICT and Course Coordinator
Pharmacology & Toxicology and Pharmaceutics
Email: sistla@niperhyd.ac.in
Contact No: +91-9849109339

Research Interests:
- Working in the areas of nanoparticle based novel drug delivery systems
- In vitro and in vivo pharmacological screening
- Pharmacokinetics of NCEs and drugs from the NDDS and regulatory toxicology of drugs.

Dr. Nalini Shastri M. Pharm., PhD.,
Associate Professor
Pharmaceutics
Email: nalini@niperhyd.ac.in
Contact No: +91-8125849395

Research Interests:
- DDS for geriatrics and pediatrics
- Solid state study
- Applications in QbD, chemometry
- Solubility & Bioavailability improvement

Dr. S. Sunitha M. Pharm., PhD.,
Lecturer,
Pharmaceutics Email:
sunitha.s@niperhyd.ac.in
Contact No: +91-9866078442

Research Interests:
- Design ,formulation & evaluation of Nanoparticles for poorly soluble drugs
- Formulation by microsphere technology
- Advanced targeted & NDDS

Mr. Naveen. Chella M. Pharm., (Ph.D)
Lecturer,
Pharmaceutics
Email: naveen@niperhyd.ac.in
Contact No: +91-8978229993

Research Interests:
- Formulation of Poorly soluble drugs
- Formulation of Herbal preparations
- Novel drug delivery systems

SUPPORTING STAFF

Mr. N. Natraj	Laboratory Assistant

Research Activity

Research in the Pharmaceutics Department encompasses basic, applied, and clinical investigations in (i) Drug delivery (ii) pharmacokinetics/ Biopharmaceutics. The major thrust area of pharmaceutics department is Drug delivery. Drug delivery is the method of administering an Active Pharmaceutical Ingredient (API) to achieve a therapeutic effect in humans or animals through various routes of adminstration. Drug delivery technologies modify drug release profile, absorption, distribution and elimination for the benefit of improving product efficacy and safety, as well as patient convenience and compliance. The goal of drug formulation and delivery is to administer a drug at a therapeutic concentration to a particular site of action for a specified period of time. The design of the final formulated product for drug delivery is done by taking into consideration the physical, chemical and pharmacokinetic and dynamic properties of the drug substance, the route of administration, the processing method and the clinical use of the product.

Current efforts in the area of drug delivery include the development of formulations that includes Immediate Release systems, Modified drug delivery systems including Novel Drug Delivery Systems (NDDS), Targeted Drug Delivery systems.

The training and research activity for first semester students involve in the areas of solubility improvement techniques, solid state manipulation, improvement in dissolution, IR dosage form development, NDDS formulation and evaluation like TDDS, niosomes, gels, matrix and coated particulate systems.

The department is concentrating on following research activities in the areas of;

IMPROVING THE BIOAVAILABILITY OF POORLY SOLUBLE DRUGS

More than 40% of drugs released in recent years have very low aqueous solubilities and also low and/or varying bioavailabilities. Many are Class 2 substances according to the Biopharmaceutical Classification System, meaning that they have a high permeability, and that the solubilization in the gastro-intestinal (GI) tract is the rate limiting step for their absorption. Solubilization in the GI tract will depend on physico-chemical properties of the drug substance (e.g. solubility and particle size) as well as physiological factors (e.g. composition, volume and hydrodynamics) of the GI fluids. The physical and chemical properties of the GI tract are complex and strongly dependent on nutritional status. Since the absorption of class 2 drugs is primarily limited by dissolution, a correlation between in vitro dissolution and in vivo absorption might be expected.

Presently our department is working on the improvement of bioavailablity of BCS class II drugs with the aid of solubility enhancement methods like cosolvency, micellization, complexation, Lipid-based formulations and use of mesoporous silica for adsorption of these drugs

ORAL DISINTEGRATING EXTENDED RELEASE FORMULATIONS FOR GERIATRICS AND PEDIATRICS

Oral disintegrating extended release formulation can reduce the adverse effect caused by the fluctuating plasma drug concentration and also increases the compliance of geriatric patients. Oral modified release multiparticulate systems offer better option in comparison to conventional or immediate single unit dosage form. The multiparticulate systems are usually filled into the capsules or compressed into tablets. The main problem with the capsule formulation is their low production rate and high cost, which make the tablet more promising system for multiparticulate system. However, the compression of coated particles is a challenging process and requires optimization of number of

parameters like coating of cores, coating material and coating thickness, cushioning materials, etc. Other advantages of the multiparticulate systems are reduction in dose dumping, tamper proof and reduction in the GI irritation. Research work has been initiated in this area to formulated compressed rapid release multiparticulate systems for class I and class II drugs.

NANOSTRUCTURED LIPID CARRIERS FOR TOPICAL DELIVERY:

The department has commenced a project focused on NDDS like, Nanostructured lipid carrier (NLC) a new generation type of solid lipid nanoparticles for delivering antifungal drugs like, Itraconazole. NLC is composed of solid lipid matrix and liquid lipid in the ratio of 70:30 and it can be up to 99.9:0.1. The mean particle size of the carrier system is in the submicron range, ranging from about 40 nm to 1000 nm. Drug loaded Nanostructured lipid carrier and incorporated into gels for convenient topical application and will be evaluated for ex vivo skin penetration. Stratum corneum is the main barrier in the percutaneous absorption of topically applied drugs. Small size and relatively narrow size distribution of drug loaded NLC permit site-specific delivery of drug to the skin.

PLASMA PROTEIN BINDING STUDIES:

The pharmacokinetic and pharmacodynamic properties of drugs are largely a function of the reversible binding of drugs to plasma or serum proteins. Such proteins include albumin, α1-acid glycoprotein, lipoproteins and α, ß, and γ globulins. Generally, only the unbound drug is available for diffusion or transport across cell membranes, and for interaction with a pharmacological target (e.g. receptor, ion channel, transporter, and enzyme). As a result, the extent of plasma protein binding of a drug influences the drug's action as well as its distribution and elimination. A thorough understanding of plasma and tissue (brain, liver, etc.) protein binding is crucial for evaluating the distribution of drug candidates. Highly plasma protein bound drugs are confined to the vascular space, thereby having a relatively low volume of distribution. In contrast, drugs that remain largely unbound in plasma are generally available for distribution to other organs and tissues, resulting in large volumes of distribution. The binding of drugs to proteins both in the vascular space and/or the extravascular space results in a decrease in drug clearance and a prolonged drug half-life. Only the unbound drug is available for glomerular filtration and, in some cases, hepatic clearance. However, for high extraction ratio drugs, clearance is relatively independent of protein binding.

IN-VITRO METABOLISM AND DISTRIBUTION STUDIES OF ENANTIOMERS

About 50% of therapeutic drugs are currently administered as a racemate, a mixture of equal proportions of two enantiomers. In an achiral environment, the enantiomers of a chiral drug show identical chemical and physical properties. However, they can present different chemical and pharmacological behavior in a chiral environment such as in the body. The interaction of two enantiomers with a chiral macromolecule, such as an enzyme or receptor, is three dimensional in nature, forming diastereomeric complexes resulting in a chiral recognition process. Moreover, when administered as a racemate, two enantiomers can display the pharmacokinetic processes (absorption, distribution, metabolism and excretion) in a stereoselective manner. Among these processes, stereoselectivity plays a central role in the metabolism due to the involvement of the enzymatic system.The purpose of this study is to evaluate the invitro metabolism and distribution of Rasagiline enantiomers and contribution of various cytochrome P450 isoforms to enantioselective metabolism.

LIST OF EQUIPMENTS IN PHARMACEUTICS

1. Brook Field Viscometer
Make: Brook field engineering laboratories
Model: LVDV-II proextra

The Brookfield DV-II+ Pro EXTRA Viscometer measures fluid viscosity at given shear rates. The Brookfield DVLoader Software can be used to program the DV-II+ Pro EXTRA to control all aspects of the test and data collection without the need for the operator to monitor the instrument; In taking viscosity measurements with the DV-II+ Pro EXTRA Viscometer there are two considerations which pertain to the low viscosity limit of effective measurement.

1) Viscosity measurements should be accepted within the equivalent % Torque Range from 10% to 100% for any combination of spindle/speed rotation.

2) Viscosity measurements should be taken under laminar flow conditions, not under turbulent flow conditions.

2. Dissolution Test Apparatus
Make: Lab India
Model: DS 8000(8bowl)

The principal function of the dissolution test apparatus:

I. Optimisation of therapeutic effectiveness during development and stability assessment

II. Routine assessment of production quality to ensure uniformity between production lots

III. Prediction of ' in-vivo' availability i.e., bioavailability (where applicable)

IV. Assessment of 'bioequivalence' (production of the same biological availability from discrete batches of products from on or different manufacturers) and its application in Scale-Up and Post Approval Changes (SUPAC).

3. Freeze Dryer
Make: Skadi Europe

Freeze drying is a process used in pharmaceutical & biochemical industries to extract dry product from an aqueous solution. The product is first frozen and then evacuated.

4.Incubated Shaker Make:Jeiotech
Model: Jeiotech-SI-300

These incubating shakers are used for cell solubility studies. Incubating shakers provide uniform controlled conditions with the use microprocessors. The desired temperature is set and forced air circulation ensures uniform heating. Temperature can be monitored via digital display.

5.Rotary Evaporator With Vacuum Pump
Make: Heidolph Instuments
Model: HEIVAP ADVANTAGE HL/HB/GI

Model: HEIVAP ADVANTAGE HL/HB/GI
Rotary evaporators are equipped with a motorized lift, which lifts the evaporator flask out of the heating bath if a power disruption occurs. Thus, negative consequences such as a boiling delay are preventable with the RV 10 rotary evaporators. Interval operation for optimal mixing, a smooth start for a safe increase in speed, an end position setting for protection against the glass breaking, and the timer function complete the safety package. The digital version of the rotary evaporator also features a digital temperature display and an RS 232 interface. A control version with an integrated vacuum controller, USB interface, and graphics-capable display is available for fully automated distilling processes. Finally, the RV 10 rotary evaporators' performance package includes the one-of-a-kind 10-year warranty. The RV 10 rotary evaporators set new benchmarks when it comes to safety, efficiency, and user-friendliness.

6.Spray Dryer Make: Jay Instruments
Model: Spary mate with spray with PC soft ware

Spray drying is used for the production of highly dispersed powders from a fluid feed by evaporating the solvent. This is achieved by mixing a heated gas with an atomized (sprayed) fluid of high surface-to-mass ratio droplets, ideally of equal size, within a vessel (drying chamber), causing the solvent to evaporate uniformly and quickly through direct contact. Spray drying can be used in a wide range of applications where the production of a free-flowing powder is required. This method of dehydration has become the most successful in the pharmaceuticals.

6.Tablet Punching Machine
Make: Karnavathi Engineering Ltd
Model: RSB4-1, Rotary: single, Tooling B,

N.o. of stations: 10; Max output (Tab/hour) : 18000
Max tab Diameter: 16mm;
Maximum depth of fill: 17mm

8.Tissue Homogenizer
Make: Ika India
Model: T25 digital ULTRA-TURRAX

Homogenization (known in the pharmaceutical industry as micronization) is the process of reducing the particle sizes of pharmaceutical products, under very high pressures, sheer, turbulence, acceleration and impact, to make them more stable and clinically effective. The bioavailability of the product increases and the tolerance of some otherwise borderline drugs can improve.The emulsion, suspension or solution is pumped into the high-pressure homogenizer after which it is forced through a special homogenization valve at extremely high pressures (up to 1,500 bar / 21,750 PSI). The particles enter the homogenizer with 500 µm maximum sizes, after the treatment the large particles are dispersed and reduced, the particle size typically range from 0.4 to 1 micron depending on the specific application.

9.Tray Dryer
Make: Lab Link Instruments

Single door construction. Electrical heating ambient upto 200ºC. Air circulation: Motorized blowers provide horizontal air flow ensures more rapid drying. Number of tray accommodated: 12 trays of 32"x 16"(size). We offer our clients quality range of tray dryer and ovens that is used for the best drying results in conventional process. Designed in compliance with the international quality standard, the dryer has a double walled cabinet with one or two doors. To avoid heat transfer, the gap between two walls is filled with high-density fiber glass wool insulation material. Stainless steel trays are placed on the movable trolley.

10.Ultrasonic Processor
Make: Sonics & Material

Ultrasonication is used in many applications, such as homogenizing, disintegration, sonochemistry, degassing or cleaning. Typical applications include, mixing and homogenizing, disintegration and sonochemistry.

List of Guest Faculty 2010-11

The list of guest faculty who has helped NIPER-Hyderabad for delivering specialised lectures and shared their experience and knowledge with the students.

No	Name of Faculty	Affiliation
01	Dr. Amit Khanna	Novartis, Hyderabad
02	Prof. V. Lakshmipathi (Retd. Professor)	Kakatitya University, Waranagal
04	Dr. A. K. S. Bhujanga Rao	NATCO Pharmaceuticals, Hyderabad
05	Dr. T. Prasanna Krishna (Retd. Scientist)	NIN, Hyderabad
06	Dr. Radha Rangarajan	Dr Reddy's Laboratories Ltd, Hyderabad
07	Dr. P. Aravinda Babu	Consultant to Pharma industry in Clinical Research and Medico Marketing
08	Prof. Sridhar Acharyulu	NALSAR University, Hyderabad
09	Dr. Sanjay Banerjee	IICT, Hyderabad
10	Dr. Y. S. K. Swamy	IICT, Hyderabad
11	Dr. V. G. M. Naidu	IICT, Hyderabad

CENTRAL COMPUTER FACILITIES

Computer facility In-Charge	**Dr. K. Srinivas**, Assistant Professor
System Administrator	**Mr. G. Venkateswarlu**

Computer centre at NIPER-Hyderabad serves the needs of faculty, staff and students in updating the literature and communication. In this institute, we are maintaining LAN \ WAN infrastructure consisting of 110 desktops and 6 Servers (Web, Mail , Proxy, FTP etc.) with Windows and Linux enterprise environments. In addition to windows 7, Vista and Windows XP operating systems, this centre have general software like MS Office 2007, Antivirus and other free software.

For day to day computer practicals and literature retrieval from internet, 50 desktops are in use. For Molecular modelling / Drug discovery activities, NIPER-Hyderabad procured license for

- Molecular Operating Environment (MOE),
- SCHRODINGER
- BIO Solve Lead IT
- Gaussian 09w
- VLife MDS 3.5 Suite

For high performance computing, two work stations are available and are used for free modelling software like AUTODOCK, NAMD etc. This centre is equipped with 4Mbps (1:1) leased line internet connectivity with six servers set up in a rack which allows the users to have access to the email, internet and etc. These servers were installed with windows Server 2003 and Linux (Red hat) operating system. We are maintaining NIPER Hyderabad website (www.niperhyd.ac.in) and mail server (Send mail, Open webmail) on our own. Other computer related accessories including high speed data transfer and network laser printer (colour and black & white: 25nos) and scanners are also available.

Examination Cell
Report on Examination Results during the Academic Year 2010-11

Dr. B. Nagendra Babu, Assistant Professor
Examination In-charge, NIPER – Hyderabad

The Result Committee with the following members has met on 13.01.2011 at 11.00 am at IICT, Hyderabad. The committee has approved the results of 3rd semester of M.S. (Pharm) 2009-11 batch and 1st semester of M.S. (Pharm) 2010-12 batch in the Academic Year 2010-11.

Members Present:

1. Prof. N. Satyanarayana - Registrar
2. Dr. B. Nagendra Babu - Examination In-charge
3. Dr. R. Srinivas - Course Coordinator
4. Dr. S. Ramakrishna - Course Coordinator
5. Dr. Kolupula Srinivas - Course Coordinator

PROVISIONAL RESULT OF THE CANDIDATES, WHO HAVE APPEARED M.S (PHARM) 3rd SEMESTER (2009-11 BATCH) EXAMINATION HELD IN JANUARY, 2011 IN THE ACADEMIC YEAR 2010-2011.

Medicinal Chemistry		**No. of Credits**	**8**
S.No.	Reg. No.	Credit Points	GPA
1	MC/2009/01	80	10.00
2	MC/2009/02	80	10.00
3	MC/2009/03	80	10.00
4	MC/2009/04	69	8.63
5	MC/2009/05	64	8.00
6	MC/2009/06	80	10.00
7	MC/2009/07	75	9.38
8	MC/2009/08	80	10.00
9	MC/2009/09	67	8.38
10	MC/2009/10	67	8.38
11	MC/2009/11	75	9.38
12	MC/2009/12	75	9.38
13	MC/2009/13	69	8.63
14	MC/2009/14	72	9.00
15	MC/2009/15	72	9.00
16	MC/2009/16	64	8.00
17	MC/2009/17	77	9.63
18	MC/2009/18	72	9.00
19	MC/2009/19	69	8.63
20	MC/2009/20	72	9.00
21	MC/2009/21	80	10.00
22	MC/2009/22	77	9.63
23	MC/2009/23	77	9.63
24	MC/2009/24	72	9.00
25	MC/2009/25	67	8.38
26	MC/2009/26	75	9.38
27	MC/2009/27	67	8.38
28	MC/2009/28	72	9.00

DEPARTMENT OF PHARMACEUTICAL ANALYSIS

Pharmaceutical Analysis		No. of Credits	8
S.No.	Reg. No.	Credit Points	GPA
1	PA/2009/01	Discontinued	
2	PA/2009/02	80	10.00
3	PA/2009/03	80	10.00
4	PA/2009/04	77	9.63
5	PA/2009/05	77	9.63
6	PA/2009/06	80	10.00
7	PA/2009/07	80	10.00
8	PA/2009/08	72	9.00
9	PA/2009/09	72	9.00
10	PA/2009/10	80	10.00
11	PA/2009/11	77	9.63
12	PA/2009/12	80	10.00
13	PA/2009/13	80	10.00
14	PA/2009/14	72	9.00
15	PA/2009/15	69	8.63

DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY

Pharmacology & Toxicology		No. of Credits	8
S.No.	Reg. No.	Credit Points	GPA
1	PT/2009/01	80	10.00
2	PT/2009/02	69	8.63
3	PT/2009/03	64	8.00
4	PT/2009/04	80	10.00
5	PT/2009/05	64	8.00
6	PT/2009/06	69	8.63
7	PT/2009/07	77	9.63
8	PT/2009/08	69	8.63
9	PT/2009/09	64	8.00
10	PT/2009/10	77	9.63
11	PT/2009/11	67	8.38
12	PT/2009/12	72	9.00
13	PT/2009/13	64	8.00
14	PT/2009/14	64	8.00

PROVISIONAL RESULT OF THE CANDIDATES, WHO HAVE APPEARED M.S (PHARM)
1st SEMESTER (2010-12 BATCH) EXAMINATION HELD IN DECEMBER, 2010
IN THE ACADEMIC YEAR 2010-2011

DEPARTMENT OF MEDICINAL CHEMISTRY:

Medicinal Chemistry		**No. of Credits**	**16**
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	MC/2010/01	134	8.38
2	MC/2010/02	155	9.69
3	MC/2010/03	144	9.00
4	MC/2010/04	152	9.50
5	MC/2010/05	139	8.69
6	MC/2010/06	156	9.75
7	MC/2010/07	121	7.56
8	MC/2010/08	153	9.56
9	MC/2010/09	120	7.50
10	MC/2010/10	135	8.44
11	MC/2010/11	127	7.94
12	MC/2010/12	148	9.25
13	MC/2010/13	140	8.75
14	MC/2010/14	156	9.75
15	MC/2010/15	144	9.00
16	MC/2010/16	139	8.69
17	MC/2010/17	142	8.88
18	MC/2010/18	150	9.38
19	MC/2010/19	116	7.25
20	MC/2010/20	135	8.44
21	MC/2010/21	124	7.75
22	MC/2010/22	134	8.38
23	MC/2010/23	117	7.31
24	MC/2010/24	125	7.81
25	MC/2010/25	101	6.31
26	MC/2010/26	132	8.25
27	MC/2010/27	105	6.56
28	MC/2010/28	97	6.06
29	MC/2010/29	120	7.50
30	MC/2010/30	134	8.38

DEPARTMENT OF PHARMACEUTICAL ANALYSIS

Pharmaceutical Analysis		No. of Credits	14
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PA/2010/01	127	9.07
2	PA/2010/02	93	6.64
3	PA/2010/03	129	9.21
4	PA/2010/04	127	9.07
5	PA/2010/05	133	9.50
6	PA/2010/06	122	8.71
7	PA/2010/07	117	8.36
8	PA/2010/08	99	7.07
9	PA/2010/09	122	8.71
10	PA/2010/10	120	8.57
11	PA/2010/11	107	7.64
12	PA/2010/12	108	7.71
13	PA/2010/13	98	7.00
14	PA/2010/14	91	6.50

DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY

Pharmacology & Toxicology		No. of Credits	16
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PT/2010/01	131	8.19
2	PT/2010/02	112	7.00
3	PT/2010/03	109	6.81
4	PT/2010/04	134	8.38
5	PT/2010/05	123	7.69
6	PT/2010/06	135	8.44
7	PT/2010/07	142	8.88
8	PT/2010/08	105	6.56
9	PT/2010/09	129	8.06
10	PT/2010/10	135	8.44
11	PT/2010/11	124	7.75
12	PT/2010/12	136	8.50
13	PT/2010/13	120	7.50
14	PT/2010/14	122	7.63
15	PT/2010/15	96	6.00

DEPARTMENT OF PHARMACEUTICS

Pharmaceutics		No. of Credits	16
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PE/2010/01	149	9.31
2	PE/2010/02	134	8.38
3	PE/2010/03	131	8.19
4	PE/2010/04	113	7.06
5	PE/2010/05	141	8.81
6	PE/2010/06	121	7.56
7	PE/2010/07	121	7.56
8	PE/2010/08	139	8.69
9	PE/2010/09	135	8.44
10	PE/2010/10	143	8.94
11	PE/2010/11	127	7.94
12	PE/2010/12	98	6.13
13	PE/2010/13	104	6.50
14	PE/2010/14	86	5.38†
15	PE/2010/15	112	7.00
16	PE/2010/16	96	6.00

† Less than 6.00 GPA

The Result Committee with the following members has met on 24.06.2011 at IICT, Hyderabad. The committee has approved the results of M.S. (Pharm) 4th semester (2009-11 batch) in the Academic Year 2010-11. The committee has also approved the merit list of the batch 2009-11 based on the CGPA.

Members Present:

1.	Prof. N. Satyanarayana	-	Registrar
2.	Dr. B. Nagendra Babu	-	Examination In-charge
3.	Dr. R. Srinivas	-	Course Coordinator
4.	Dr. S. Ramakrishna	-	Course Coordinator
5.	Dr. Kolupula Srinivas	-	Course Coordinator

PROVISIONAL RESULT OF THE CANDIDATES, WHO HAVE APPEARED M.S (PHARM)
4th SEMESTER (BATCH 2009-11) EXAMINATION HELD IN JUNE, 2011
IN THE ACADEMIC **YEAR 2010-11**

DEPARTMENT OF MEDICINAL CHEMISTRY:

Medicinal Chemistry		**No. of Credits**	**12**
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	MC/2009/01	120	10.00
2	MC/2009/02	120	10.00
3	MC/2009/03	120	10.00
4	MC/2009/04	108	9.00
5	MC/2009/05	96	8.00
6	MC/2009/06	120	10.00
7	MC/2009/07	120	10.00
8	MC/2009/08	120	10.00
9	MC/2009/09	120	10.00
10	MC/2009/10	87	7.25
11	MC/2009/11	111	9.25
12	MC/2009/12	111	9.25
13	MC/2009/13	99	8.25
14	MC/2009/14	120	10.00
15	MC/2009/15	120	10.00
16	MC/2009/16	105	8.75
17	MC/2009/17	120	10.00
18	MC/2009/18	120	10.00
19	MC/2009/19	120	10.00
20	MC/2009/20	99	8.25
21	MC/2009/21	120	10.00
22	MC/2009/22	108	9.00
23	MC/2009/23	120	10.00
24	MC/2009/24	120	10.00
25	MC/2009/25	120	10.00
26	MC/2009/26	120	10.00
27	MC/2009/27	111	9.25
28	MC/2009/28	96	8.00

DEPARTMENT OF PHARMACEUTICAL ANALYSIS

Pharmaceutical Analysis		No. of Credits	12
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PA/2009/01	Discontinued	
2	PA/2009/02	120	10.00
3	PA/2009/03	120	10.00
4	PA/2009/04	117	9.75
5	PA/2009/05	120	10.00
6	PA/2009/06	120	10.00
7	PA/2009/07	120	10.00
8	PA/2009/08	111	9.25
9	PA/2009/09	111	9.25
10	PA/2009/10	120	10.00
11	PA/2009/11	108	9.00
12	PA/2009/12	120	10.00
13	PA/2009/13	120	10.00
14	PA/2009/14	117	9.75
15	PA/2009/15	117	9.75

DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY

Pharmacology & Toxicology		No. of Credits	12
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PT/2009/01	117	9.75
2	PT/2009/02	117	9.75
3	PT/2009/03	96	8.00
4	PT/2009/04	111	9.25
5	PT/2009/05	96	8.00
6	PT/2009/06	108	9.00
7	PT/2009/07	84	7.00
8	PT/2009/08	117	9.75
9	PT/2009/09	96	8.00
10	PT/2009/10	96	8.00
11	PT/2009/11	96	8.00
12	PT/2009/12	96	8.00
13	PT/2009/13	96	8.00
14	PT/2009/14	93	7.75

Overall Merit List of M.S. (Pharm), Batch 2009-11

S. No	Reg. No.	Credit Points (I+II+III+IV)	CGPA
1.	MC/2009/01	490	9.80
2.	MC/2009/02	489	9.78
3.	MC/2009/03	488	9.76
4.	MC/2009/08	486	9.72
5.	MC/2009/06	481	9.62
6.	PT/2009/01	478	9.56
7.	PT/2009/04	476	9.52
8.	PA/2009/03	475	9.50
9.	PA/2009/02	470	9.40
10.	PA/2009/07	469	9.38
11.	MC/2009/07	465	9.30
12.	PA/2009/13	464	9.28
13.	MC/2009/09	463	9.26
14.	PA/2009/04	461	9.22
15.	PA/2009/10	454	9.08
16.	PA/2009/08	453	9.06
17.	MC/2009/26	452	9.04
18.	MC/2009/15	449	8.98
19.	PT/2009/02	448	8.96
20.	PA/2009/09	447	8.94
21.	PT/2009/06	445	8.90
22.	MC/2009/12	444	8.88
23.	MC/2009/21	442	8.84
24.	PT/2009/08	437	8.74
25.	PA/2009/06	436	8.72
26.	MC/2009/11	435	8.70
27.	MC/2009/14	434	8.68
28.	MC/2009/18	432	8.64

S. No	Reg. No.	Credit Points (I+II+III+IV)	CGPA
29.	PA/2009/05	428	8.56
30.	MC/2009/17	427	8.54
31.	PT/2009/10	424	8.48
32.	MC/2009/22	423	8.46
33.	PT/2009/07	421	8.42
34.	PT/2009/09	415	8.30
35.	PT/2009/11	415	8.30
36.	MC/2009/23	412	8.24
37.	PT/2009/05	412	8.24
38.	MC/2009/25	411	8.22
39.	MC/2009/16	401	8.02
40.	MC/2009/13	399	7.98
41.	PT/2009/13	384	7.68
42.	PT/2009/12	382	7.64
43.	MC/2009/05	380	7.60
44.	MC/2009/20	379	7.58
45.	MC/2009/28	378	7.56
46.	MC/2009/24	375	7.50
47.	PT/2009/03	371	7.42
48.	PT/2009/14	362	7.24
49.	MC/2009/04	360	7.20
50.	PA/2009/12*	477	9.54
51.	PA/2009/11*	441	8.82
52.	PA/2009/14*	437	8.74
53.	MC/2009/19*	432	8.64
54.	MC/2009/10*	376	7.52
55.	PA/2009/15*	375	7.50
56.	MC/2009/27*	359	7.18

* Indicates candidates who improvement / upgraded in re-examinations

PROVISIONAL RESULT OF THE CANDIDATES, WHO HAVE APPEARED M.S (PHARM) **2nd SEMESTER** (BATCH 2010-12) EXAMINATION HELD IN MAY, 2011 IN THE ACADEMIC **YEAR 2010-11**

DEPARTMENT OF MEDICINAL CHEMISTRY:

Medicinal Chemistry		**No. of Credits**	**14**
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	MC/2010/01	93	6.64
2	MC/2010/02	129	9.21
3	MC/2010/03	129	9.21
4	MC/2010/04	123	8.79
5	MC/2010/05	113	8.07
6	MC/2010/06	133	9.50
7	MC/2010/07	92	6.57
8	MC/2010/08	121	8.64
9	MC/2010/09	109	7.79
10	MC/2010/10	116	8.29
11	MC/2010/11	114	8.14
12	MC/2010/12	122	8.71
13	MC/2010/13	121	8.64
14	MC/2010/14	135	9.64
15	MC/2010/15	103	7.36
16	MC/2010/16	99	7.07
17	MC/2010/17	122	8.71
18	MC/2010/18	122	8.71
19	MC/2010/19	88	6.29
20	MC/2010/20	111	7.93
21	MC/2010/21	105	7.50
22	MC/2010/22	114	8.14
23	MC/2010/23	95	6.79
24	MC/2010/24	97	6.93
25	MC/2010/25	78	5.57†
26	MC/2010/26	92	6.57
27	MC/2010/27	80	5.71†
28	MC/2010/28	67	4.79†
29	MC/2010/29	85	6.07
30	MC/2010/30	99	7.07

† below 6.0 GPA

DEPARTMENT OF PHARMACEUTICAL ANALYSIS

Pharmaceutical Analysis		No. of Credits	16
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PA/2010/01	154	9.63
2	PA/2010/02	114	7.13
3	PA/2010/03	156	9.75
4	PA/2010/04	157	9.81
5	PA/2010/05	156	9.75
6	PA/2010/06	149	9.31
7	PA/2010/07	147	9.19
8	PA/2010/08	125	7.81
9	PA/2010/09	147	9.19
10	PA/2010/10	150	9.38
11	PA/2010/11	126	7.88
12	PA/2010/12	145	9.06
13	PA/2010/13	121	7.56
14	PA/2010/14	114	7.13

DEPARTMENT OF PHARMACOLOGY & TOXICOLOGY

Pharmacology & Toxicology		No. of Credits	14
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PT/2010/01	132	9.43
2	PT/2010/02	132	9.43
3	PT/2010/03	120	8.57
4	PT/2010/04	133	9.50
5	PT/2010/05	134	9.57
6	PT/2010/06	136	9.71
7	PT/2010/07	136	9.71
8	PT/2010/08	106	7.57
9	PT/2010/09	126	9.00
10	PT/2010/10	136	9.71
11	PT/2010/11	132	9.43
12	PT/2010/12	138	9.86
13	PT/2010/13	125	8.93
14	PT/2010/14	124	8.86
15	PT/2010/15	88	6.29

DEPARTMENT OF PHARMACEUTICAL ANALYSIS

Pharmaceutics		**No. of Credits**	**14**
S.No.	Reg. No.	Credit Points	GPA (on 10 point scale)
1	PE/2010/01	127	9.07
2	PE/2010/02	128	9.14
3	PE/2010/03	124	8.86
4	PE/2010/04	105	7.50
5	PE/2010/05	130	9.29
6	PE/2010/06	112	8.00
7	PE/2010/07	113	8.07
8	PE/2010/08	126	9.00
9	PE/2010/09	124	8.86
10	PE/2010/10	129	9.21
11	PE/2010/11	114	8.14
12	PE/2010/12	100	7.14
13	PE/2010/13	101	7.21
14	PE/2010/14	103	7.36
15	PE/2010/15	102	7.29
16	PE/2010/16	102	7.29

LIBRARY AND INFORMATION CENTRE

Dr. S. Gananadhamu	Assistant Professor & Library In charge
Mr. Y. Narsaiah	Project Assistant
Mr. G. Chandrakanth	Project Assistant

NIPER Hyderabad library serves as a source of information centre for pharmaceutical industry and academic institutions. NIPER library has a rare collection of old chemical and biological abstracts since the year 1907 to 1983. NIPER-H library has 9450 titles of books, total no of copies is 14,896, 14 national scientific journals, 10 pharmacy journals & magazines, 13 news papers & employment news. NIPER-H library provides the facilities such as books and journal borrowing, literature search, photo copying, news clipping service etc. The online database Reaxys facility is also available at NIPER-H.

(A) The existing stock of books and Periodicals of IDPL and NIPER as follows:-

S.No	Title	Total no. of titles	Total no. of copies
1	Books obtained from IDPL	9450	14 688
2	Encyclopaedia	114	114
3	Dictionaries	94	94
4	Books purchased by NIPER	390	533
5	Journals purchased by NIPER	14	14
6	Scientific journals and Magazines	10	10
7	News papers	8	8
	Total	**10080**	**15461**

(B) The following books were procured for NIPER library. The total amount spent for the Books, Journals and Magazines procured during the academic year 2010-2011 is ₹.6, 77,981/-

S.No	Title	Total no. of titles	Total no. of copies
1	Books purchased by NIPER	127	234
2	Journals purchased by NIPER	14	14
3	Scientific journals and Magazines	10	10
4	News papers	13	13
5	Employment news	1	1
	Total	**165**	**272**

List of Journals & Magazines available at NIPER - Library from 2010-11

S.No	Name of the Company	Periodicity
1	Resonance	Monthly
2	Indian Journal of Chemistry Section – A	Monthly
3	Indian Journal of Chemistry Section – B	Monthly
4	Indian Journal of Experimental Biology	Monthly
5	Journal of Scientific And Industrial Research	Monthly
6	Journal of Intellectual Property Rights	Monthly
7	Current Science	Bimonthly
8	Indian Journal of Chemical Technology	Bimonthly
9	Natural Product Radiance	Bimonthly
10	Indian Journal of Biochemistry And Biophysics	Bimonthly
11	Indian Journal of Biotechnology	Quarterly
12	Indian Journal of Marine Science	Quarterly
13	Indian Journal of Traditional Knowledge	Quarterly
14	Annals of Library & Information Studies	Quarterly
15	Chronicle Pharma Biz	Weekly
16	Express Pharma	Fortnightly
17	Nano Digest	Monthly
18	Pharma Bio World	Monthly
19	Chemical Engineering World	Monthly
20	Chemical Product Finder	Monthly
21	The Pharma Reviews	Bimonthly
22	Indian Pharma Reference Guide	Yearly
23	Outlook	Weekly
24	Frontline	Fortnightly

Aug 2011

Library In-charge

Guest Lectures / Seminars/ Events Conducted in NIPER Hyderabad During the Academic Year 2010-11

Date	Delegate	Title of the Talk
11th August 2011	Dr Rajendra Uppoor, R.Ph., M.Pharm, Ph.D., Pharmacist, Center for Drug Evaluation and Research, Office of Pharmaceutical Science, US FDA	A discussion on New Drug Development, from Discovery to Patients
31st May 2011	Dr. Krishna R. Devarakonda, Director, Clinical Pharmacology & Pharmacokinetics, COVIDIEN, U.S.A	Biomarkers: In Disease & Drug Discovery
2nd May 2011	Dr C. Someswara Rao, Technical advisor, Aptuit Laurus and Nivika ChemoPharma	Sustainable [green] Chemistry
April 15th-17th,2011 CAD3-2011 Workshop	Dr. J.A.R.P. Sharma, GVK Biosciences, Hyderabad	Nascent Technologies in Drug Design based on Virtual Methods
	Prof. M. Rami Reddy, RR Labs Inc., San Diego, USA & Visiting Professor, University of Hyderabad	Introduction to CADD Methods: Discovery of New class of clinical candidates for Diabetes & one FDA approved drug for AIDS
	Dr. Anthony Addlagatta, Scientist, IICT	A Step before CAD3: Analysis of .pdb file
	Dr. Ravindra S. Rathore, Scientist, University of Hyderabad	Structure Prediction Methods in Computer-aided Drug Discovery
	Dr. Sami Mukhopadhyay: Principal Application Scientist, VLife Sciences Technologies Pvt. Ltd, Pune	Demonstration on Introduction to Molecular Modeling, Homology Modeling, Protein Structure Analysis
	Dr. Guru Prasad, Scientist, CCMB, Hyderabad	Modeling Protein Three-Dimensional Structure from Sequence
	Dr. Sami Mukhopadhyay: Principal Application Scientist, VLife Sciences Technologies Pvt. Ltd, Pune	Virtual Library Generation and Screening
	Dr. Sreedhara R Voleti, Institute of Life Sciences, Hyderabad	Structure Based Applications in Drug Discovery
	Dr. Raveendra Dayam, Associate Director Informatics, GVK Biosciences Pvt. Ltd	Structure Based Drug Design: Fragment Based Approaches
12th April, 2011	Ms. Doreen Tan, Product Manager, Elsevier (I) Pvt. Ltd	Presentation on Reaxys (Reaxys is a web based search and retrieval system for chemical compounds,bibliographic data and chemical reactions)
23rd March, 2011	Prof. Ram I Mahato, Dept. of Pharmaceutical Sciences, University of Tennessee Health Science Center, Mempphis, TN, USA	Bioconjugation for Site-specific Delivery of Oligonucleotides and siRNA for treating Liver Fibrosis
12th March, 2011	Sarpanji, G.M, IDPL, Hyderabad	Managerial Skills
1st Mar, 2011	Prof. Tadhg P. Begley, Texas A&M University, College Station, Texas, US	Thiamin biosynthesis: still yielding fascinating biological chemistry
Symposium on MEDCHEM Congress - 2011 on 25th Feb 2011	Dr. Anabella Villalobos, Pfizer, USA	Exploiting a more polar property space in the design of candidates for the central nervous system

Date	Delegate	Title of the Talk
	Dr. Pradip K Bhatnagar,Daiichi Sankyo, Life Science Research Centre, India	Drug discovery opportunities in India
	Professor Ian Paterson, University of Cambridge, UK	Synthesis of marine polyketides as promising anticancer agents
	Dr. Ram Vishwakarma, Indian Institute of Integrative Medicine, India	Chemical biology of phosphatidylinositols and new drug discovery
	Dr. Ahmed Kamal, IICT and NIPER-Hyd	DNA interactive anticancer agents
	Professor B Lakshmi , University Institute of Pharmaceutical Sciences , India	Pharmacophore based 3D-QSAR modeling and docking studies of biphenyl derivatives as nonsteroidal aromatase inhibitors in JEG-3 cell lines
	Dr. Saibal Das,IICT, India	Automation chemistry: generation of focused chemical libraries towards drug development
	Professor Martin Drysdale ,The Beatson Institute for Cancer Research, UK	Fragment based hit identification and structure based approaches to cancer drug discovery
	Dr Javed Iqbal, Institute of Life Sciences, India	Synthesis of macrolide core of antitumor macrolides dictyostatin, tedanolide and rhizoxin D
9th Feb. 2011	Dr.Nishil Malde, International Channel Manager	Introduction & Application of Vapor Sorption Technology
3rd Feb. 2011	Dr. Ahmed Kamal,NIPER-Hyderabad and Dr.Michael Munday, Professor, School of pharmacy,University of London, UK	Prof. T.R.Seshadri Memorial Lectures
Workshop on Drug Discovery : D4PS Module 3 (26th and 27th, Nov, 2010)	Dr. J.B Gupta - GVK Bio	Drug Discovery and Development - An Overview
	Dr. Swaroop Kumar - Incozen Therapeutics	Biopharmaceutical issues in Preclinical Drug Development
	Dr. Shashivardhan and Dr. Anthony - IICT	Target Identification and Validation (Structural Biology)
	Dr. Rajesh Karan - Novartis	Drug Screening (Vaccines, Biologies, Small Molecules) & Lead Identification - Overview
	Dr. Giridaran - NIN	Ethical Issues in Animal Experimentation
	Dr. Vyas M Shingatgeri - Ranbaxy	Significance of Safety Pharmacology
	Dr. Subramanian - Novartis	In-vitro Methods in DMPK" and "I ntroducation on Calculation of FIH dose : Case Study
	Dr. Dinesh Kumar - NIN	Toxicology Testing : Methodology and Regulatory Perspective
	Prof. V. Laxmipathi - Kakatiya University	Special Toxicology Studies : Mutagenicity & Carcinogenecity
	Dr. Ashwini - Novartis	Role of Statistics in Preclinical Research

Date	Delegate	Title of the Talk
	Dr. Venugopal Peta - Novartis	General principles of GLP Toxicology and their applications
	Dr. Geetha Rajashekar - Qualtox Consultancy	Principles of Good Laboratory Practice - OECD Perspective
25th Nov. 2010	Dr. Vyas M Shingatgeri	Ethics in Animal Experimentation
Workshop on Drug Discovery : D4PS Module 2 (12th and 13th, Nov, 2010)	Dr Amit Khanna, Novartis Healthcare Pvt. Ltd.	New Products Generation - Novel Drug Delivery Sytems, New Formulations, New Combinations with Introduction to new Technologies
	Prof. Devraj Rambhau, Advisor - Novel Drug Delivery Systems Division	Multifunctional Nano-Carriers
	Dr. Apte - NATCO	Nano Drug Delivery for Better Therapeutic Endpoint
	Dr. J. Ashok Raj - Dr.Reddy's	In Vitro In Vivo Correlation (IVIVC)
	Dr. Jagannath Kota and Mr. Parag Borde, Novartis	NDDS from Concept to Clinical Development
	Prof. Y.M.Rao, Kakatiya University	Programmable Drug Delivery - Pulsatile and Feedback Control Mechanisms
	Dr. Ajay K Singh, DRDO, Delhi	Nuclear Medicine Imaging and Gamma - Scintigraphy- A non invasive technique for evaluating Novel Drug Delivery Systems
23rd Oct 2010	Dr. James H Wible	Drug Discovery - Concept to Market
Workshop on Drug Discovery : D4PS Module 1 (8th and 9th, Oct 2010)	Dr Ashwini Mathur and Dr Amit Khanna, Novartis Healthcare Pvt. Ltd.	Drug Discovery and Development - An Overview
	Dr Manika Pal Bhadra, IICT, Hyderabad	Target Identification and validation in drug discovery
	Dr Sanjay K. Banerjee Ramalingaswami Fellow (DBT), IICT	SGLT-1: A Novel target for drug development in cardiomyopathy
	Dr. S. CHANDRASEKHAR, Scientist G, IICT	Lead Identification and Optimization
	Dr Jagannath Kota PhD, Senior Scientist, Novartis Healthcare Pvt. Ltd.	Drug Metabolism and Pharmacokinetics, Role in Drug Discovery to Development
	Prof. V.Lakshmipathi, Guest Professor, NIPER-HYDERABAD	SIGNALING PATHWAYS : THERAPEUTIC TARGETS
	Dr Prabhat Arya,ILS	Chemical Biology to Drug Discovery in the Post-Genomic Era
	Dr.J.Madhusudan Rao, IICT	Opportunities in New Drug Discovery from Natural Products And Traditional Systems of Medicine in India
	Dr.Vinu Jose, Novartis Healthcare Pvt. Ltd	Preclinical and Clinical Drug Development
	Dr Amit Khanna, Novartis HealthCare Pvt. Ltd	Regulatory Perspective of Drug Development
	Dr G.Narahari Sastry, IICT	Molecular Modeling (QSAR, Docking Studies, Molecular Dynamics
	Dr Hemant Kumar Srivastava, IICT	Molecular Modeling :Theory and Case Studies
28th Sep, 2010	Dr. S. Chandrasekhar, Deputy Director, IICT, Hyderabad	The Role of an Organic Chemist in Drug Discovery: From Chirality to Automation
25th Sep. 2010	Prof. V.Laxmipathi, Retd. Professor, Kakatiya University,Warangal	Deregulation of energy metabolism in pathology - an examination of interacting players at organism and cellular level
24th Sep. 2010	Mrs. Anuroopa Dixit,Scholarship Programme, DAAD India	Study and Research in Germany
4th Aug 2010	Prof. C.N.R Rao,FRS	VISION OF SCIENCE FOR INDIA

RESEARCH PUBLICATIONS

1. A One-pot Azido Reductive Tandem Mono-N-Alkylation Employing Dialkylboron Triflates: Online ESI-MS Mechanistic Investigation; Shankaraiah, N.; Markandeya, N.; Srinivasulu, V.; Sreekanth, K.; Reddy, Ch. S.; Santos, L. S.; Kamal, A. J. Org. Chem. 2011, 76, 7017–7026

2. Synthesis and anticancer activity of new chalcone-pyrrolobenzodiazepine conjugates linked via 1,2,3-triazole ring side-armed alkane spacers; Kamal, A.; Prabhakar, S.; Ramaiah, M. J.; Reddy, P. V.; Reddy, Ch. R.; Mallareddy, A.; Shankaraiah, N.; Reddy, T. L. N.; Pushpavalli, S. N. C. V. L.; Bhadra, M.-P. Eur. J. Med. Chem. 2011, 46, 3820–3831

3. An efficient one-pot synthesis of benzothiazolo-4β-anilino-podophyllotoxin congeners: DNA topoisomerase-II inhibition and anticancer activity: Kamal, A.; Kumar, B. A.; Suresh, P.; Shankaraiah, N.; Kumar, M. S. Bioorg. Med. Chem. Lett. 2011, 21, 350–353

4. Total syntheses of rutaecarpine and analogues by tandem azido reductive cyclization assisted by microwave irradiation: Kamal, A.; Reddy, M. K.; Reddy, T. S.; Santos, L. S.; Shankaraiah, N. Synlett 2011, 61–64

5. Short Total Synthesis of (–)-Lupinine and (–)-Epiquinamide by Double Mit-sunobu reactions: Santos, L. S.; Gallardo, Y.-M.; Shankaraiaha, N.; Simirgiotis, M. J. Synthesis 2011, 51–56

6. Design and characterization of sustain release effervescent floating tablets of atenolol; Shireesh Kiran R., Chandra Shekar B, Nagendra Babu B, and M.V.V.Prasad; Journal of Pharmacy Research, 4, 1766, 2011

7. Asymmetric syntheses of piperidino-benzodiazepines through 'cation-pool' host/guest supramolecular approach and their DNA-binding studies: Markandeya, N.; Shankaraiah, N.; Reddy, Ch. S.; Santos, L. S.; Kamal, A. Tetrahedron: Asymmetry 2010, 21, 2625–2630

8. Synthesis of bis-1,2,3-triazolo-bridged unsymmetrical pyrrolobenzodiazepine trimers via 'click' chemistry and their DNA-binding studies: Kamal, A.; Shankaraiah, N.; Reddy, Ch. R.; Prabhakar, S.; Markandeya, N.; Srivastava, H. K.; Sastry, G. N. Tetrahedron, 2010, 66, 5498–55069. Kamal, A.; Sreekanth, K.; Kumar, P. P.; Shankaraiah, N.; Balakishan, G.; Ramaiah, M. J.; Pushpavalli, S.N.C.V.L.; Ray, P.; Bhadra, M. P. Synthesis and potential cytotoxic activity of new phenanthrylphenol-pyrrolobenzodiazepines. Eur. J. Med. Chem. 2010, 45, 2173.

10. Soriano, M. D. P. C.; Shankaraiah, N.; Santos, L. S. Short synthesis of noscapine, bicuculline, egenine, capnoidine, and corytensine alkaloids through the addition of 1-siloxy-isobenzofurans to imines. Tetrahedron Lett. 2010, 51, 1770.

11. R. Shireesh Kiran, B. Chander Shekar, Sharadha Srikanth, B. Nagendra Babu, M. V. V. Prasad. Formulation design and optimization of mouth dissolve tablets of glipizide. International Journal Of Pharmacy&Technology 2010, 2, 762 12. R Shireesh Kiran, B Chander Shekar, B Nagendra Babu. Ranitidine HCl gastroretentive floating tablets based on hydrophilic polymers. Research Journal of Pharmaceutical, Biological and Chemical Sciences 2010, 964.

13. Arun Kumar, P.; Raman, D.; Murthy, U. S. N.; Jayathirtha Rao. V. Stereoselective synthesis of (+)-neophrosteranic acid by ring–closing metathesis approach and its biological evaluation. Synth. Comm. 2010, 40, 686.

14. Conformational Analysis of 2-Anthrylethylelne derivatives: Photochemical and Computational Investigation U. Srinivas, Kolupula Srinivas, P. Arun Kumar, K. Bhanuprakash and V. Jayathirtha Rao Journal of Structural Chemistry 2011 (Accepted)

15. Synthesis and in vitro Anti Cancer Activity of Novel Rhodanine Derivatives Boddu Ananda Rao, V. G. M. Naidu, Ravindra Singh Rajpooth, Kolupula Srinivas, Sistla Ramakrishna, Vaidya Jayathirtha Rao Int. J. Pharma and Bio Sciences 2011, 2, 191

16. Oxa-Di-π-Methane Rearrangement of β,γ-Unsaturated Ketones

    V.Jayathirtha Rao and Kolupula Srinivas

    One Chapter in CRC Handbook of Photochemistry and Photobiology 3rd Edition, CRC Press, New York (In Press) 2011

Poster Presentations at Conference/Symposium:

1. Markandeya, N.; Shankaraiah, N.; Reddy, Ch. S. Santos, L. S.; Kamal, A. One-pot Aromatic Azidoreductive-N-alkylation Using Dialkylborontriflates as Alkylating Reagents and Online ESI-MS Mechanistic Investigation: International Conference on Organic Synthesis and Human Well Being: Emerging Opportunities and Challenges, August 1-4, 2010, Hyderabad, India (Best Poster Award)

2. Srinivasulu, V.; Sreekanth, K.; Shankaraiah, N.; Juvekar. A. S.; Zingde S. M.; Kamal, A. Diversity Oriented Solid-Phase Synthesis and Cytotoxic Activity of Novel 1,2,3-Triazolo-Chalcone Derivatives by Employing 'Click' Chemistry: International Conference on Organic Synthesis and Human Well Being: Emerging Opportunities and Challenges, August 1-4, 2010, Hyderabad, India

3. Telukutla, S. R.; Suresh, P.; Shankaraiah, N. Design, Synthesis and Anticancer Activity of Novel 4β(1-Phenyl Urea)podophyllotoxin Congeners: International Conference on Organic Synthesis and Human Well Being: Emerging Opportunities and Challenges, August 1-4, 2010, Hyderabad, India

4. Prabhakar, S.; Shankaraiah, N.; Reddy, Ch. R.; Markandeya, N.; Juvekar, A. S.; Zingde, S. M.; Kamal, A. Solid-phase Synthesis and DNA-binding Ability of a Library of Pyrrolobenzodizepines as Anticancer Agents: International Conference on Organic Synthesis and Human Well Being: Emerging Opportunities and Challenges, August 1-4, 2010, Hyderabad, India

5. M. V. N. Kumar Talluri*, Anitha Kalyankar, Naveen Reddy Kandimalla, D. Subrahmanyam; Method development and validation for the Gas Chromatography-Flame Ionization Detection assay of ethanol in Arishtas (Ayurvedic formulations) (oral presentation) International Conference on RECENT ADVANCES IN DRUG DISCOVERY, Organized by University College of Pharmaceutical Sciences, Kakatiya University, Warangal (A.P) India, 22nd – 24th October 2010

6. M.V.N. Kumar Talluri, Amit K. Jain, Nirav N. Jadav, K.V. Lalitha; Drug-excipient interaction study of cyclobenzaprine hydrochloride with different pharmaceutical excipients by RP-HPLC (poster presentation) International Conference on RECENT ADVANCES IN DRUG DISCOVERY, Organized by University College of Pharmaceutical Sciences, Kakatiya University, Warangal (A.P) India, 22nd – 24th October 2010 7. Folding Induced Regioselectivity and Rate Acceleration in Helically folded Oligomers: Molecular Modeling study Madishetti Shravani, Kotamarthi Bhanuprakash, Kolupula Srinivas* MEDCHEM Congress – 2011 by IICT, NIPER-Hyderabad & RSC, London; February 25-26, 2011(1st Best Poster Award)

8. Role of Steric and Electronic effects in Folding Propensities of Quinoline Oligoamides Kolupula Srinivas, Priya Pandey, Brice Kuffman, Leon Ghosez, Ivan Huc* MEDCHEM Congress – 2011 by IICT, NIPER-Hyderabad & RSC, London; February 25-26, 2011

9. Design, Synthesis, Characterization and Biological Activity of Schiff's Bases Derived from 2-Chloro-3-Formylquinoline and its metal Complexes

   Yamuna Penuka, Shabaz Eqbal, C. Rohit, Talla Venu, Md. Arifuddin, Kolupula Srinivas

   MEDCHEM Congress – 2011 by IICT, NIPER-Hyderabad & RSC, London; February 25-26, 2011

10. Synthesis, in Vitro Anti Cancer Activity and Molecular Docking Studies of Novel Rhodanine Derivatives

    Boddu Ananda Rao, Ravindra Singh Rajpoot, V.G.M.Naidu, Kolupula Srinivas, Sistla Ramakrishna, V. Jayathirtha Rao

    MEDCHEM Congress – 2011 by IICT, NIPER-Hyderabad & RSC, London; February 25-26, 2011

11. Novel Rhodanine derivatives as PPAR-□ Agonists: Design, Synthesis and Antidiabetic Activity Evaluation

    V.Ramesh, B. Ananda Rao, Pankaj Sharma, Archana Yadav, Kolupula Srinivas, Swetha Ld, Kulkarni Prasad, Sistla Ramakrishna, V. Jayathirtha Rao

    MEDCHEM Congress – 2011 by IICT, NIPER-Hyderabad & RSC, London; February 25-26, 2011

AWARDS AND HONOURS

1. OPPI Young Scientist Award – 2010

Dr. N. Shankaraiah, Assistant Professor, Department of Medicinal Chemistry at National Institute of Pharmaceutical Education and Research (NIPER), Hyderabad received the prestigious Organization of Pharmaceutical Producers of IndiaYoung Scientist Award-2010 from Shri Prithviraj Chavan Honourable Minister of Science & Technology Govt. of India in Mumbai on 24th September 2010. The OPPI is pleased to recognize and honoured Dr. Shankaraiah for his outstanding research contribution in Pharmaceutical Sciences. He has carried out the research work for new chemical entities of anticancer agents in drug discovery.

2. Associate Ship Award

Dr. M. V. N. Kumar Talluri, Lecturer, Department of Pharmaceutical Analysis, NIPER-Hyderabad, Elected as an Associate & Received Associate Ship Award from the Institute of Chemist for the high quality research contributions in the area of Drugs and Pharmaceutical Analysis during the academic year 2010-11.

Conferences / Workshops attended by faculty and students

1. International Conference on "Recent Advances in Drug Discovery", 22nd - 24th October, 2010
2. Workshop on Drug Discovery: D4PS-2010 (Overview on Drug Discovery and Development), 8–9th October, 2010
3. UPLC workshop on "Proteins, peptides and amino acids" on 07 June 2010 organized by Waters India Pvt. Ltd. Secunderabad.
4. Workshop on Drug Discovery, Drug Design, Development, Delivery and Preclinical Studies (D4PS) from 8th -9th Oct.2010 at NIPER and IICT-Hyderabad.
5. International conference on "Recent advances in drug discovery", 22-24th Oct 2010, conducted by Kakatiya University, Warangal.
6. National seminar on "Recent Advances in Analytical Sciences –Indian Perspective (RAASI)" organized by Indian Society of Analytical Scientists from January 20th to 21st 2011.
7. Recent trends in instrumental methods of analysis during February 18-20th 2011 conducted by IIT Roorkee.
8. IPC – USP 10th science and standards symposium 2011, Feb 17 & 18, 2011, Hyderabad India.
9. Workshop on Drug Discovery: Drug Design, Development, Delivery and Preclinical studies (D4PS); Module 1 (8th and 9th October 2010), Module 2 (12th and 13th November 2010) and Module 3 (26th and 27th November 2010),
10. Workshop on separation of peptides and proteins by UPLC-H class by waters, 2010 at Secundrabad.
11. Won 2nd prize in YICC (Young Innovative Choice Competition) at ICT/UDCT Bombay in 2011. 12. Participated in national seminar on "Recent Advances in Analytical Sciences: Indian Perspective" Organized by ISAS at IICT Hyderabad, held on 20-21 Jan 2011. 13. Invited Lecture @ National Symposium on "Chemistry: Our Life & Future" Sponsored by UGC & Conducted by NBKR Arts & Science College, Nellore, A. P., India; June 29th 2011
14. Invited talk: "Workshop in Chemistry (Hands on Experience) conducted by Royal Society of Chemistry (London) Deccan Section, Hyderabad & NIPER-Hyderabad; April 8-9, 2011
15. Invited Lecture in Scientific Plenary Session @ Conventus 2011: GITAM Pharma Fest; March 25-26, 2011, Visakapatnam, A. P. India
16. Invited Lecture @ MEDCHEM Congress – 2011 by IICT, NIPER-Hyderabad & Royal Society of Chemistry (RSC), London; February 25-26, 2011

PLACEMENT CELL
Placements Activity during the academic year 2010 - 2011

Dr. A. Krishnam Raju, Assistant Professor
Placement Officer, NIPER - Hyderabad

Placement Cell:

NIPER-H facilitates the student's placements through Placement Cell. The Placement Cell gives information about employment opportunities and makes information available about higher education in India and other countries.

Placement is just one of the meeting points between NIPER-Hyderabad and the Industry. It is our endeavor to facilitate the exchange of knowledge between the students and the industry. NIPER provides a platform for placement where companies are invited to recruit students of various specializations and work experience. Potential employers are able to undertake on-campus recruitment through a stream-lined process of registration, PPTs and selection. Understanding the significance of using the right aptitude and knowledge skill- sets for the right task, the Placement Team at NIPER seeks to provide corporate and students the best opportunities for mutually beneficial selection. NIPER Hyderabad also responsible for identifying the right student organization fit, the Placement Team selects targets and invites companies for Final Placements.

Student empowerment is a key feature of life at NIPER-Hyderabad. NIPER Placement Committee is an integral part of the institute, seeks to identify the right student for the opportunity provided by a prospective employer. The Placement Team identifies potential recruiters, interacts with selected companies and coordinates the visit of such corporate executives to the campus. An effective way of creating awareness about companies among students is to provide information. The information could be in the form of company brochures, pamphlets and other published information. The Placement Office ensures distribution of published material among students. At NIPER-Hyderabad various events, guest speaker panels, conferences, workshops and academic fairs are organized in which companies participate directly or contribute through partnerships.

Besides maintaining the academic schedule as par with NIPER-Mohali, NIPER-H also encourages and helps the students in overall development and makes them well groomed personalities in academics with professional personality to become a cardinal component of pharmaceutical industries. Personality Development classes and English communication classes are conducted as support to train the students in all aspects through placement cell. Placement Cell also provides an opportunity for the students to interact with eminent personalities and experts from Industry as well as from Academia by arranging Invited Lectures, Interactive sessions, etc.

Placement talks are arranged and facilities are provided for Campus interviews. NIPER-H students have been successful in getting placements with over 65% every year in various MNCs. Many students of the previous batches (2007-10) have been placed with good packages in numerous pharmaceutical industries including Novartis, Hyderabad; DMV, Hyderabad; Matrix, Hyderabad; AMRI, Hyderabad; AMRI, Aurangabad SAPL, Hyderabad; SAPL, Pune; Orbeez, Hyderabad; Orchid, Chennai; Biocon, Bangalore; Daiichi Labs, Delhi; US Pharmacopeia, Hyderabad, Suven life sciences Ltd, Hyderabad, Pharmexcil, Hyderabad; Database monitors, Hyderabad, Jubilant, Noida; Torrent, Ahmedabad; Lupin, Pune; GVK Bio Sciences, Hyderabad; Indigene, Bangalore; Dr. Reddy's Hyderabad.

Year wise direct placement details:

The results of earlier batches of NIPER Hyderabad (2007-10) and their placement in reputed pharmaceutical organizations reflect the sincere efforts of Placement Committee, faculty and indispensable support of mentor institute, IICT Hyderabad. In 2009-2011 batch above 65% of the students (32 out of 51 registered) are placed. In 2008-10 batch 60% of the students (24 placed out of 40 registered) are placed. In 2007-09 batch 60% of the students (11 out of 19) are placed.

Higher Studies:

Apart from industrial placements, placements cell also encourages the students to go for higher studies. Some of the students have also been selected by some of the prestigious institutes like IIM, IIT, NIPER- Mohali, IICT, Hyderabad.

Students placed in various companies by on/off campus interviews for 2009-2011 Batch

Name of the Company	Students placed
BioCon, Bangalore	12
NOVARTIS, Hyderabad	4
AMRI, Hyderabad	4
Matrix, Hyderabad	2
SAPL, Pune	1
Orchid, Chennai	1
Daiichi, Delhi	1
Orbeez, Hyderabad	1
Dr. Reddy's, Hyderabad	1
SAPL, Hyderabad	1
DMV, Hyderabad	1
Indigene, Bangalore	1
Govt. Job.	2
Total Students placed	**32**

Companies with NIPER-HYDERABAD (Batch 2008-10):			
S.No.	**Name of the Student**	**Department**	**Name of the Company**
1.	Surya Prakash Jain	Pharmaceutical Analysis	DMV, Hyderabad
2.	Patil Sandeep Ashok	Pharmaceutical Analysis	AMRI, Hyderabad
3.	Dattatray Wani	Pharmaceutical Analysis	AMRI, Hyderabad
4.	Gopal Krishna Tunga	Pharmaceutical Analysis	SAPL, Hyderabad
5.	Mukesh Kumar Bairawa	Pharmaceutical Analysis	SAPL, Pune
6.	Alpesh Patel	Pharmaceutical Analysis	Torrent, Ahmedabad
7.	Rahul Prakash Gunjal	Pharmaceutical Analysis	Matrix, Aurangabad
8.	Shine Thomas T.	Pharmacology & Toxicology	DMV, Hyderabad
9.	Yogesh Kumar Bulani	Pharmacology & Toxicology	DMV, Hyderabad
10.	Sneha Shripad Date	Pharmacology & Toxicology	Lupin, Pune
11.	Prachi Gupta	Pharmacology & Toxicology	Novartis, Hyderabad
12.	Anil Kumar K.	Pharmacology & Toxicology	DMV, Hyderabad
13.	Vasantha G.	Pharmacology & Toxicology	DMV, Hyderabad
14.	Manoj R Abhang	Pharmacology & Toxicology	DMV, Hyderabad
15.	Puja Vijay Gangwal	Pharmacology & Toxicology	DM Hyderabad
16.	Shyam Dhadke	Pharmacology & Toxicology	DMV, Hyderabad
17.	K. Prashanth Kumar	Pharmacology & Toxicology	GVK Bioscience, Hyd.
18.	Bidya Dhar Sahu	Pharmacology & Toxicology	GVK Bioscience, Hyd.
19.	Ravindra Singh Rajpoot	Medicinal Chemistry	DMV, Hyderabad
20.	Vasant S. Gaikwad	Medicinal Chemistry	DMV, Hyderabad
21.	Jeetendra Yadav	Medicinal Chemistry	Jubilant, Noida
22.	Hrishikesh P. Dhongade	Medicinal Chemistry	Novartis, Hyd.
23.	Mahajan Satish Suryakant Rao	Medicinal Chemistry	Novartis, Hyd.
24.	Chetan Jaiprakash Bhutada	Medicinal Chemistry	Novartis, Hyd.

Students selected for Ph.D. Programme (Batch 2008-10):			
S.No.	**Name of the Student**	**Department**	**Name of the Institute**
1.	N. Mallikarjun	Pharmaceutical Analysis	NIPER, Mohali
2.	Devrukhakar Prashant S.	Pharmaceutical Analysis	IIM, Kozhikode
3.	Roshan M. Borkar	Pharmaceutical Analysis	IICT, Hyderabad
4.	Sriram Kumar Bomma	Medicinal Chemistry	IICT, Hyderabad
5.	Teluktla Srinivasa Reddy	Medicinal Chemistry	IICT, Hyderabad
6.	Ramkesh Meena	Medicinal Chemistry	CDRI, Luknow

Students Hostel- NIPER Hyderabad

Mr. T. Venu	Lecturer, Hostel In-charge
Mrs. B. Radhika	Hostel Women Care Taker
Mr. Venu Gopal Rao	Security & Maintenance Assistant

Location

The students of NIPER HYDERABAD have been currently provided accommodation at NIPER hostel located at IDPL township, around 2 kms away from NIPER campus situated in Balanagar,Hyderabad. Students are provided with bus service from hostel to college and again back to hostel. Students live in a pleasant surroundings of intellectually stimulating environment.The layout of the hostel in general is appealing.

Hostel management

The hostel is administered by a Hostel Incharge, Mr. T.Venu, lecturer Pharmacology and Toxicology under the guidance of Registrar of NIPER-H and he is assisted by a women care taker, Mrs.B.Radhika, Security and Maintenance Assistant Mr. K Venu Gopal Rao in all matters relating to the hostel.

An external security agency is contracted for providing security at the hostels. The services of the security personnel are monitored by the hostel incharge.

Accommodation

NIPER- H hostel at present provides accommodation for 120 students which include 60 girls and 60 boys.

NIPER hostel has 48 large, well ventilated, fully furnished student rooms which accommodate two students each. Each room also has an attached bathroom with facilities for hot and cold water.

Facilities

The hostel provides the students with an atmosphere much like a home away from home. It provides them with all the necessary facilities which help them to acclimatize well with this new ambience.

- Each occupant is provided with a cot, a study table, chair and an almirah.
- It has its own mess which is managed and run by the students themselves. Keeping in view, the different tastes of the students, the mess caters them with healthy and tasty food.
- Visitor waiting room
- A number of recreational, sports, literary and social activities take place in the hostel during the academic year.
- Two separate TV rooms with 29' inch flat television and cable are provided for girls and boys.
- A common table tennis room with two playing boards.
- Separate courts for shuttle and volley ball are constructed.
- Water purifier for providing pure water also available
- The hostel is surrounded by good number of trees with a beautiful garden.
- Morning walk track for joggers.

STUDENTS WELFARE ACTIVITIES

Dr. Nalini Shastri	Student Welfare Officer (SWO)
Dr. A. Krishnam Raju	Coordinator-Personality Development Programme
Dr. N. Shankaraiah	Coordinator-Communication Programme
Mr. T. Venu	Coordinator-Sports and other events

Student's welfare officer was appointed as per the requirement of NIPERs. Regular meetings were scheduled to attend/solve student problems and grievances. One of the major accomplishments was successful transfer of NIPER managed mess to students managed mess. The students formed their own mess management committee to look after the administrative and financial requirements for independent functioning of the mess with the help of SWO. Counselling was provided to the students concerned when there was a case of squabbling was reported. The many activities like sports meet, debate, farewell party, were organized under the umbrella of welfare activities. Steps were initiated to start a student welfare fund. Further activities scheduled are installation of WiFi connection to students at the hostel, improving the accommodation facility at the hostel, organizing intercollegiate student festival.

- Personality Development Programme:

  As a part of strengthening the content of education to the students of NIPER, Hyderabad, it has taken up a programme of imparting to the students, a course on Personality Development skills by M/s. Multi Task Minds, Hyderabad

- Communication Programme:

  Conducted Bridge course for students in communication skills in English while writing/speaking and in the seminar presentations. A Professor from the Department of English, The English and Foreign Languages University (CIEFL), Hyderabad was invited.

- Fee Waiver:

  The institute is providing Central Scheme for Partial tuition fee waiver for students belonging to economically weaker sections of society in NIPERs at Masters Level. The committee has been constituted and will consider 20% of the total number of admitted students (excluding belonging to SC/ST). As per the student's merit rank in NIPER – JEE and income certificate produced by them, the fee waiver is given. Each student is paid Rs. 5,000/- per semester

- Eye Camp:

  Conducted Eye Camp on 4th August, 2011 by Dr Agarwal's Eye Hospital and Team. Faculty, Staff and Students have actively participated and undergone free eye checkup by the Team.

- Blood Donation camp:

  Conducted Blood Donation Camp on 30th March, 2011by "Institute of Preventive Medicine" IPM, Narayanaguda. Dr Kalyani, Medical Officer has visited the institute

- Sports Events:

  Games/sports were conducted such as Carroms, Chess, Shettle. Friendly Cricket was conducted among Students and Faculty/Staff.

- Visit to Old Age Home:

  Faculty, Staff and Students of NIPER-H have visited Trinity Service Society (Old Age & Orphange Home) on 24th June, 2011 and distributed clothes etc

- Independence Day Celebrations:

  Dr Ahmed Kamal, Project Director, Prof. N. Satyanarayana, Registrar, Course Coordinators have addressed the Faculty, Staff and Students.

  A Disney Show was conducted was it was hosted by Prof. V. Peesapati, Professor, NIPER-H on 15.08.2010

- New Year Celebrations:

  Cake cutting by Dr Ahmed Kamal, Project Director. Greetings and the gathering were addressed by Registrar and Course Coordinators to all students, faculty and staff on 1.1.2011

- Republic day Celebrations:

  The function was addressed by Project Director, Registrar and Dr S Ramakrishna along with faculty, staff etc on 26.01.2011

- Teacher's Day Celebrations:

  Students have performed cultural activities and have felicitated their faculty. Registrar and Course Coordinators have addressed the Students and Faculty on 05.09.2010

- Plantation Programme:

  It was conducted jointly by APPCB and NIPER – Hyderabad on 21.08.10

- Chemistry Quiz:

  It was conducted by Royal Society of Chemistry at NIPER – Hyderabad on 20.11.10

- Debate:

  Students have actively participated in the debate entitled "Who is real drug discoverer: Chemist, Pharmacologist or Analyst"? on 08.01.10

WORKSHOP ON DRUG DISCOVERY:
D4PS -2010 Module I (8th & 9th Oct. 2010)

Dr. Ahmed Kamal , Project Director NIPER-H addressing the delegates

Lecture by **Dr. Amit khanna**, Novartis Hyderabad.

Lecture by **Manika Pal Bhadra**, Scientist, IICT, Hyderabad

Lecture by **Dr. S. Chandrasekhar**, Scientist G, IICT

Delegates attended for the workshop D4PS-2010 Module I

WORKSHOP ON DRUG DISCOVERY:
D4PS -2010 MODULE II (12TH & 13TH NOV. 2010)

Introducing the definitions & terminologies involved in CTD
by **Dr Ranjani**, Nellore, Pharmantra

Hands on experience on Drug development - Delegates are working on case studies

Lecture by **Dr. Rambhau**, Advisor, NDDS Division, NATCO Research Centre, Hyderabad

Addressing the delegates by **Dr. A.Krishnam Raju**, Convener; D4PS-2010 Workshop

Delegates attended for the workshop D4PS-2010 Module II

WORKSHOP ON DRUG DISCOVERY:
D4PS -2010 Module III (26th & 27th Nov. 2010)

Lecture by **Dr. Geeta Rajashekar**
Qualtox Consultancy

A fascinating and educative talk by
Dr. Swaroop kumar, Incozen

Lecture on "how to apply the statistics in pre-clinical studies" by **Dr. Ashwini Mathur**, Head, Novartis

Lecture by **Dr. Dinesh Kumar**, Scientist, NIN , Hyderabad.

Delegates attended for the workshop D4PS-2010 Module III

INTERNATIONAL SYMPOSIUM :
MEDCHEM Congress – 2011(25th Feb. 2011)

Addressing the delegates by Professor **Lan Paterson**, University of Cambridge, UK

Delegates at MEDChem Congress 2011 Symposium

Lecture by **Dr. Anabella Villalobos**, Pfizer, USA

Discussion during gap at MEDCHEM Congress 2011

Student explaining their poster to delegates during poster presentation

Delegates examining for the best poster

Delegates attended for MEDChem congress 2011 from all over the globe

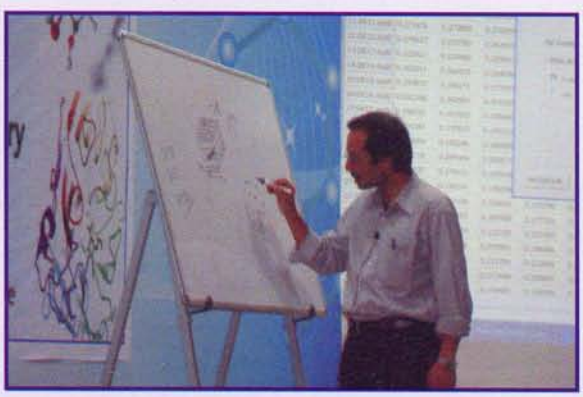
WORKSHOP ON CAD3-2011 (15TH -17TH 2011)

Lightning the lamp

Addressing the delegates by
Dr.V.J.Rao, Scientist IICT

Delegates presented at workshop

Eminent Scientists /
personalities at CAD3 -2011 workshop



Dr. Sami Mukhopadhyay: Principal Application Scientist, VLife Sciences Technologies during his lecture

Hands on experiences during the workshop

GUEST LECTURE DURING 6TH PHARMACY WEEK CELEBRATIONS: (25TH NOV 2010)

Dr. Vyas M Shingatgeri
Ranbaxy lecture during Pharmacy Week Celebrations

Dr. Vyas M Shingatgeri
Ranbaxy

PROF T.R.SESHADRI MEMORIAL LECTURE: (3RD FEB 2011)

Dignitaries at inauguration of the event

Lecture by **Dr. Michael Munday**, Professor, School of pharmacy,University of London, UK

Lecture by **Dr. Ahmed Kamal,** Project Director ,NIPER-H

Interaction of students with **Dr. Michael Munday,** Professor, School of pharmacy, University of London, UK

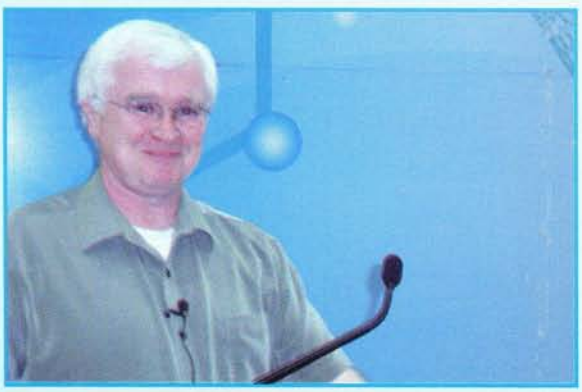
GUEST LECTURES

Scientific Lecture by **Dr. James H Wible** on "Drug Discovery - Concept to Market" at NIPER-Hyderabad (23rd Oct 2010)

Interaction of students with **Dr. James H Wible**

Dr. Krishna R. Devara Konda (31st May 2011)

Dr. C. Someswara Rao (2nd May 2011)



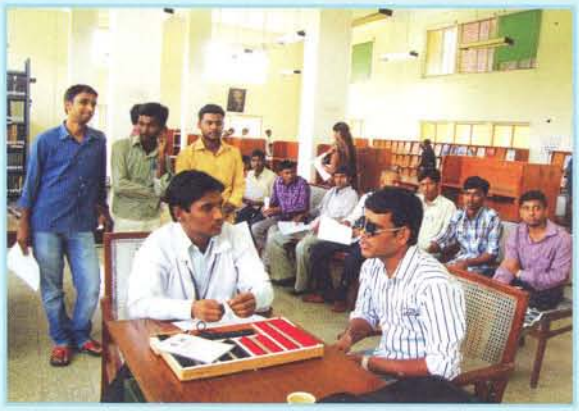
Prof. Tadhg P. Begley (1st March,2011)

Prof. Ram I Mahato (23rd Mar 2011)

PLACEMENT ACTIVITY BY NIPER-H

Republic and Independence Day Celebrations 2011

Eye Camp at NIPER-Hyderabad



Blood Donation Camp by NIPER-H Students

Helping Hearts Programme by NIPER-H Students (Old Age Home)

Teacher's Day Celebrations 2010

Farewell Day Celebrations 2011

Lord Ganesh Pooja at NIPER-H Hostel

Sports at NIPER-Hyderabad

Sports in flood Lights at NIPER-H Hostel

Prize distribution on the eve of Sports events

NIPER-H Students at IPL Cricket Match

Plantation at Hostel NIPER-HYDERABAD