150 YEARS OF CELEBRATING THE MAHATMA

ANNUAL REPORT 2018-19

NIPER
अहमदाबाद
AHMEDABAD

National Institute of Pharmaceutical Education and Research, Ahmedabad (NIPER-A)

Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Government of India

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From the Director's Desk

Greetings and welcome to the National Institute of Pharmaceutical Education and Research (NIPER)-Ahmedabad. NIPER-Ahmedabad was established in the year 2007, with an aim to train individuals displaying competency in the pharmaceutical sector to meet the requirements of the ever-growing healthcare sector. Ever since then the Institute has an outstanding record of producing outstanding pharmaceutical scientists, researchers, and academicians. The institute is functioning from a transient temporary building on 60-acre land site at Gandhinagar since August 2016. Located in the industrial hub of Gujarat, NIPER offers several experiential learning opportunities for its students including extramural internships at pharmaceutical companies. Here we believe that creating good pharmacists begins with cultivating compassion, respect, and academic integrity. Diversity is one of our core values, and we strive to inspire our students to be forces of positive change in the world.

The brilliance in academics and research activities comes from the vigilant selection of faculty members in which NIPER-Ahmedabad has not made any compromise. It has gone to outreach and fetches scholars with excellent postdoctoral and teaching experiences from all over the world to enrich the education and research quality of the institute. With these exceptional faculties, the Institute motivates its students to achieve the highest standards of excellence in their courses. With its fascinating team, NIPER-Ahmedabad is on an engrossing path of growth and development. I am glad to share that we have attained ALL INDIA RANK # 1st in TLR (teaching, learning, and research) for second consecutive year with overall Rank # 9th in NIRF-2019 ranking of MHRD. Today, NIPER-Ahmedabad has established itself as one of the top technological pharmacy research institutes in the country, but that is just the tip of the iceberg equated to the gigantic initiatives and evolutions the institute is making. Research collaboration is an integral part of our growth strategy. NIPER-Ahmedabad has expanded its outreach to the industry as well as collaborated with the best academic institution of USA, UK, Australia, Ireland and Malaysia for collaborating research, faculty visit, syllabus up-gradation and regulatory reforms with several industries and leading institutes. We have made a spectacular start but there is a long way to go nevertheless I am pretty certain that with the dynamic teamwork of all our faculty, staff, employees, collaborators, stakeholders, students, parents of the students, constitutional organizations, funding agencies and public at large, we will be able to achieve the maxims of NIPER-Ahmedabad.

Prof. Kiran Kalia
Director
NIPER-Ahmedabad

जय हिन्द - जय भारत !

About NIPER-Ahmedabad

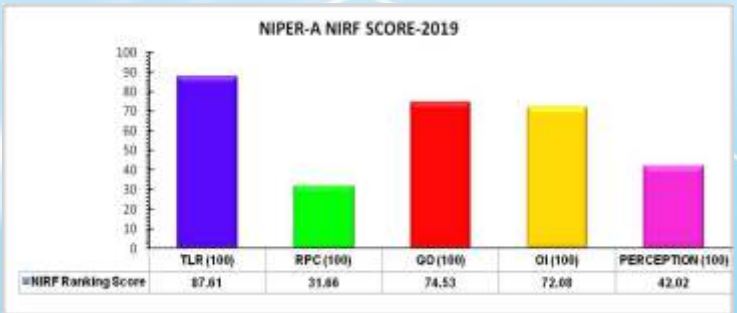
The wave of globalization has propelled the expansion of Indian Pharma sector. India is amongst the top 10 countries of the world, regarding the volume and value of Pharmaceutical products. Enthusiastic and entrepreneurial efforts have turned Gujarat into the hub of Pharma Manufacturing, Research & Development activities. The innovative and translational approach of the Indian scientists resulted in the paradigm shift from the industrial age to knowledge enriched economy.

Pharmaceutical education has played a vital role in human resource development, catalyzing the growth of life sciences and healthcare industry. The visionary augmentation of the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Government of India has led to the establishment of six new NIPERs in 2007. It is currently functioning from a transient temporary building on 60-acre landsite at Gandhinagar since August 2016. NIPER-Ahmedabad is currently offering 7 MS and Ph.D. program in Pharmaceutics, Pharmaceutical Analysis, Pharmacology & Toxicology, Biotechnology, Natural Products, Medicinal Chemistry, and Medical Devices. Plan to establish the National Centre for Medical Devices (NCMD) to cater as well as nurture the need for booming medical device industries within and outside India. The interdisciplinary courses and cultural diversity at NIPER-Ahmedabad sparks the spirit of innovative research and all-round development of its students. The location of the institute ensures a symbiotic association with Pharmaceutical Industries, Medical centers, and technological universities. In the year 2018, it has achieved all India Rank # 1st in TLR (teaching, learning, and research) with overall Rank # 9th in NIRF-2019 ranking of MHRD. NIPER-Ahmedabad aspires to serve as a good launching platform to revamp the pharmaceutical education and research and to initiate the new era of pharmaceutical and biomedical sciences.

NIRF Ranking 2019

NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF), MHRD 2019:
NIPER-A secures 1st Rank in TLR and overall 9th best Pharma Institute in India @ NIRF 2019 Rankings

NIPER Ahmedabad, under the stimulating leadership of Prof. Kiran Kalia, aspires to be an internationally recognized premier centre of excellence in teaching, research, and entrepreneurial training. The interdisciplinary courses and cultural diversity at NIPER Ahmedabad spark the spirit of innovative research and all-round development of its students. NIPER Ahmedabad has served as a good launching platform to revamp the pharmaceutical education and research, to initiate the new era of pharmaceutical and biomedical sciences.



National Institutional Ranking Framework (NIRF), Ministry of Human Resource Development, Govt. of India, has released All India Rankings 2019 on 8th April, 2019 by Honorable President of India (Shri. Ram Nath Kovind), at Vigyan Bhavan, New Delhi in which NIPER – A has been Ranked # 1st in prestigious section of Teaching and Learning Resources (TLR) and All India Ranking of #9th among all Pharmacy Educational and Research Institutions in India as per NIRF 2019 released by Ministry for Human Resource Development, Government of India.

NIRF Ranking 2019

National Institute of Pharmaceutical Education and Research Ahmedabad

NIPER-Ahmedabad has evolved as one of the premier institutes from Gujarat that has grabbed top position among the leading pharmacy Institutes in the country. Under the leadership of Director Prof. Kiran Kalia with a strong faculty team, NIPER-Ahmedabad has made its position in the country in a very short period of time. The TLR ranking of NIPER-Ahmedabad was on the basis of the ratio of a number of faculty members in the institute, their outstanding qualification, and intake of students in all its existing programs. The ranking was based on the number of educational, refresher and orientation courses and activities that NIPER-Ahmedabad has organized. It has also been credited outstanding for its participation in e-content creation programmes, interactions, and collaboration with industries and facilitation of outside faculty in quality improvement. These initiatives of NIPER-Ahmedabad has added enormously to the skilled development initiative of Government of India.

Vision and Mission

Vision

- To be a Nationally and Internationally recognized premier Centre of Excellence in Teaching, Research and Entrepreneurial Training in Pharmaceutical Sciences and Biomedical Technologies

Mission

- To ensure that departmental and administrative associates are provided with the necessary resources to excel in learning, research, teaching, and administration
- To establish the National Centre of Medical Devices (NCMD) for contributing to Medical Technology education through collaborative programs of mutual interest
- To evolve Medical Technology clusters with common facilities for creating an ecosystem for the benefit of SMEs focusing on Medical Technology
- Development of human resource by skill up-gradation of students through specialized courses and training
- To encourage students for innovative translational research through interdisciplinary research team
- To promote national and international collaboration with Pharmaceutical Industries, Medical Centres, and Universities
- To facilitate international student and faculty exchange programs to enhance the diversity on the campus.
- To organize International and National conferences and structured workshops for the benefit of students and professionals

Faculty

Prof. Kiran Kalia, Ph.D.
Director
Research Interest:
- Proteomic and genomic biomarkers for diabetes and its microvascular complications
- Role of miRNA in epigenetics and pathogenesis of diabetic nephropathy
- Transcriptome analysis of Oral Squamous Cell Carcinomas patients from Gujarat, India

Dr. Akshay Srivastava, Ph.D.
Assistant Professor
Research Interest:
- Translational biomedical research involving fabrication of biomaterial-based medical devices
- Finding novel therapeutic strategies for tissue regeneration and developing in vitro platforms to understand disease pathology

Dr. Pallab Bhattacharya, Ph.D.
Assistant Professor
Research Interest:
- Intra-arterial delivery of mesenchymal stem cells in small/large animal model of ischemic stroke and study mechanisms of neuroprotection
- Regulatory RNA-mediated mesenchymal stem cell engineering-based drug delivery to the brain

Dr. Rakesh Kumar Tekade, Ph.D.
Assistant Professor
Research Interest:
- Polymeric Transfecting Reagent for targeted drug and RNA Interference (RNAi) therapy
- Targeted Nano Drug delivery in Cancer, Arthritis, Neuro degenerative disorders etc.
- Implantable Chemo-Photothermal Nanoseeds to tackle resistant Cancers
- NIR-Laser activatable injectable Nanoseeds for Photo-chemo-thermal therapy of resistant tumors; and for the prevention of post-surgical relapse of the resectable tumor.

Dr.Govinda Kapusetti, Ph.D.
Assistant Professor
Research Interest:
- Fabrication of smart nano-biomaterials for articular surfaces and musculoskeletal tissue regeneration and care
- Alternative strategies for cancer theranostics like magnetic hyperthermia and photodynamic therapy
- Electrical and mechanical stimulations for regenerative medicine

Faculty

Dr. Abhijeet Kate, Ph.D.
Assistant Professor
Research Interest:
- Implementation of various LC-MS based dereplication strategies to discover novel scaffolds from biological sources, fingerprinting of extracts by LC-UV-MS
- Development of novel approaches for the separation and characterization of marine natural products to accelerate the discovery of drug leads

Dr. Dinesh Kumar, Ph.D.
Assistant Professor
Research Interest:
- Development of new strategies and concepts in synthetic organic chemistry to address the challenging problems in biomedical research, particularly anti-cancer drug discovery
- Development of sustainable organic reactions (Green Chemistry)
- Total synthesis of pharmaceuticals and natural products

Dr. Amit Shard, Ph.D.
Assistant Professor
Research Interest:
- Synthesis of BAX activating compounds and neuroprotective molecules
- Microwave-assisted organic synthesis
- Novel and sustainable protocols for bioactive molecules targeting kinesin proteins towards anticancer activity

Dr. Satyasheel Sharma, Ph.D.
Assistant Professor
Research Interest:
- Transition metal catalyzed C-H activation reactions for the synthesis of anticancer agents
- Fluorine-containing scaffolds of pharmaceutical importance via C-H Bond Activation
- Unreactive C(sp2)-H, C(sp3)-H bond functionalization
- Cross dehydrogenative coupling (CDC), Catalysis, functionalization of the porphyrin ring

Dr. Amit Khairnar, Ph.D.
Assistant Professor
Research Interest:
- Development of breast cancer metastatic mouse model
- Detection of pathophysiological mechanism behind metastasis, using the IVIS imaging
- Detection of role of neuroinflammation in alpha-synuclein in Parkinson's disease

Faculty

Dr. Aditya Sunkariya, Ph.D.
Assistant Professor
Research Interest:
- Reactivation of proteasome-mediated protein degradation in microglial cells.
- Understanding the microglial dynamics in different microenvironments.
- Learning and memory impairments in proteinopathies.

Dr. Manju Misra, Ph.D.
Assistant Professor
Research Interest:
- Exploring the potential of bovine lipid as carriers for drug delivery to brain and posterior segment of eye
- Solubility enhancement techniques and application in formulation development
- Thermal and solid-state characterization of different pharmaceutical process

Dr. Pinaki Sengupta, Ph.D.
Assistant Professor
Research Interest:
- Pharmacokinetic, toxicokinetic, metabolic profiling of chemical entities
- Analytical and Bioanalytical method development, validation using HPLC, UPLC, LC-MS/MS, Impurity profiling
- Compatibility and stability analysis of pharmaceuticals

Dr. Alok Jain, Ph.D.
Assistant Professor
Research Interest:
- Develop the therapeutic application using various computational techniques. Current research areas are drug delivery, tissue engineering, drug design, and structural biology.
- Comparative simulation study of human and rat Aβ aggregation for the development of a potential therapeutic application for the Alzheimer

Dr. Prasoon Kumar, Ph.D.
Assistant Professor
Research Interest:
- Design, manufacture and deploy medical devices
- Bio-inspired design, micro/nanofluidics, micro/nanomanufacturing and additive manufacturing for tissue engineering applications and others.

Faculty

Dr. Rachana Garg, Ph.D.
Assistant Professor
Research Interest:

- Elucidating the nature of the dysregulated signaling networks in cancer, as well as the association of oncogenic kinases
- Finding novel targeting molecules for cancer therapeutics using varied cellular, biochemical, genetic, and molecular approaches

Dr. Uma Ranjan Lal, Ph.D.
Assistant Professor
Research Interest:

- Isolation and Characterization of Bioactive Molecules from Plants
- Standardization aspects of Herbal Formulations.

Dr. Ravi Shah, Ph.D.
Assistant Professor
Research Interest:-

- Characterization of complex APIs, Formulations, and Biosimilars; biopolymers and complex generic formulations towards sameness strategy for regulatory submission
- In-vitro release profiling through advance dissolution methods
- LC-MS and NMR based characterization of impurities, drug-drug/ drug-excipient interaction products, degradation products

Dr.Bichismita Sahu, Ph.D.
Assistant Professor
Research Interest:

- Design and synthesis of Peptides and Modified Peptide Nucleic Acids (PNAs) for therapeutic and diagnostic applications
- Design and synthesis of Bio-inspired hybrid molecular scaffolds and conjugates for Cancer, Metabolic and Neurological Disorder therapy

Post Doctoral Fellow

Dr. Rahul Maheshwari, Ph.D.

Research Interest:

- Development of smart drug delivery system for targeted drug and gene therapy
- Biopolymer nanoconstructsfor solubilization and stabilization of therapeutics
- Transdermal delivery of therapeutics

Dr. Khemraj Bairwa, Ph.D.

Research Interest:

- Bioassay-guided extraction and isolation of potential secondary metabolites from Plants and their structure elucidation
- Standardization of plants and herbal extracts with respect of marker constituents using HPLC-PDA, UPLC-PDA, and qNMR techniques
- Development of herbal nanoformulation like phytosomes and nanoparticles of enriched plant extract or bioactive markers

Administrative Staff

Prof. Kiran Kalia
Director

Mr. Ajay Kumar Pathak
Registrar

Mr. Kunal Maheshwari
Assistant Registrar

Ms. Shweta Pardal
PA to Director

Mr. D. R. Trivedi
Senior Accounts Officer

Dr. Deo Kumar Singh
Veterinarian

Mr. Sujeet Pathak
Assistant Grade-II

Ms. Boni Halder
Assistant Grade-II

Mr. Prakash Ravi Das
Junior Assistant (Store)

Ms. Shilpi Sen
Assistant Grade-III

Ms. Pooja Chauhan
Assistant Grade-III

Mrs. Vakta Parth Belani
Office Assistant

Administrative Staff

Mr. Preet Goswami
Office Assistant

Mr. Madhavanand Jha
Hostel Supervisor

Mr. Akil Malek
Library and Information Assistant

Technical Staff

Ms. Rajeshwari Rathod
Scientific Officer

Ms. Bhagyawanti Chomal
Technical Assistant

Ms. Monika Seervi
Technical Assistant

Mr. Rakesh Patel
Junior Tech. Asst. (IT)

Mr. Jignesh Patel
Electrician

6th Convocation

6th Convocation

29th December, 2018

The National Institute of Pharmaceutical Education and Research (NIPER)-Ahmedabad witnessed its 6th convocation on Saturday, 29th December 2018. During this ceremony, 69 M. S. (Pharm.) and 1st Ph.D. students were conferred with their degree. Prof. Randeep Guleria, Director, AIIMS, New Delhi graced the occasion as Chief Guest of the ceremony. Honorable Prof. Bikramjit Basu, IISc, Bangalore (Guest of honor) along with Prof. V. Nagarajan, MD MNAMS DM, D.Sc. (Neuroscience), Prof. K. Ravichandran, Director NIPER-Kolkata were present as invited guests during the function. Besides these dignitaries, registrar NIPER-A, NIPER-A alumni, and faculty members of NIPER-A attended the ceremony.

The convocation started with an academic procession headed by the registrar holding flag of NIPER-A followed by chief guest, guest of honor, invited guests, Director NIPER-A. The dignitaries were followed by the faculty members and students of NIPER-A. The tunes composed by Edward Elgar called “Pomp and Circumstance” added flavor to the Academic Procession. The convocation ceremony was formally declared as open by Prof. Ravichandran, NIPER- Kolkata on behalf of Chairman, Steering Committee. Director NIPER-A warmly welcomed the chief guests, guest of honors, invited guests and gathered an audience to the NIPER-A campus. She presented welcome address and acknowledged all the dignitaries on- and off the dais for gracing the occasion. Prof. Kalia also briefed the journey of NIPER-A and narrated how it is consistently contributing to health care research industry. Followed by the address, the director took permission from the representative, chairman steering committee for exhortation and then gave a pledge to the graduate students. After the pledge, the chief guest of the function Prof. Guleria presented gold medals to overall toppers and to department toppers. Following gold medal distribution, book prizes were jointly circulated by Prof. V. Ravichandiran, Prof. V. Nagarajan, and Prof. Kiran Kalia to the selected students from the different academic department.

6th Convocation

After prize distribution, chief guest of the function, Prof. Guleria, addressed the gathering and heartily congratulated all the successful graduates. In his address, he highlighted the potentials and prospects of Indian science education and methods to overcome it to create a world-class institution. He also emphasized the importance of basic and translational research, innovation & entrepreneurship. Toward the end of his address, he put forward his view on the deep association of science and society. Prof. Basu congratulated all the students and appreciated the faculty members of NIPER-A for construction of NIPER-A as a front runner institute in pharmaceutical and medical research.

After this, Prof. V. Nagarajan addressed the gathering. After congratulating the young graduates of NIPER-A, Prof. V. Nagarajan in his address added the importance of patriotism in daily life and women empowerment in India. He also expressed his happiness on choosing "Neurodegenerative Disorders" as one of the thrust areas by NIPER-A and wished for new molecules emanating from NIPER-A. Followed by addresses from all the dignitaries, the award of degrees to the students was conducted. Student representative Ms. Shivani Vaidya and Mr. Jackson Saraf extended a vote of thanks on behalf of all graduates, where they mentioned how NIPER curriculum, teaching, and the course has brought the positive transformation in their life. Prof. V. Ravichandiran on behalf of representative, Chairman, Steering Committee, declares the closing of the 6th convocation, followed by the national anthem, and group photo with the dignitaries and faculties were snapped at the venue. The program was followed by lunch, NIPER-A campus visit, and departure of guests.

6th Convocation

Degrees Awarded during 6th Convocation

Ph.D. Degree Awarded	Name of Student
Natural Product	Bhavik Kansara

M.S. (Pharm) Degree Awarded	Total Number of Students
Biotechnology	07
Medicinal Chemistry	09
Medical Devices	10
Natural Products	06
Pharmaceutical Analysis	13
Pharmacology & Toxicology	10
Pharmaceutics	14

Book Prize Awardees

Book Prize was given to five students from the collective merit list of the batch. The Winners of book prize in 6th convocation are presented below:

Book Prize Awardees	Name of Students
Pharmacology & Toxicology	Vaidya Shivani Paresh
Pharmacology & Toxicology	Jackson Saraf
Pharmaceutics	Aashu Gupta
Pharmacology & Toxicology	Kanchan Vats
Pharmacology & Toxicology	P. A. Shantanu

Gold Medal Awarded during 6th Convocation

Gold Medal Awardees	Name of Students
Biotechnology	Bhat Vedika
Medicinal Chemistry	Monika Diwaker
Medical Devices	Anup Kumar
Natural Products	Kulkarni Abhishek
Pharmaceutical Analysis	Thakkar Harsh
Pharmacology & Toxicology	Vaidya Shivani
Pharmaceutics	Aashu Gupta

Certificate of Appreciation for the Part of Patent Application

Students Name	Dept.	Title of Patent	Mentor	Indian Patent No.	Date
Silvy Mary	MD	Supermacroporus, drug-loaded collagen punctal plug	Dr. Akshay Srivastava	201821045485	02-12-18
Anup Kumar	MD	Graphene Oxide/Polypyrrole /Polyaniline / Zinc Oxide Nanocomposite Based Electrode for Effective Detection of Cholesterol and Bilirubin,	Dr. Govinda Kapusetti	201821040222	25-10-18
Kuche Kaushik	PE	Mix-and-Deliver-Type' In Vivo applicable Polymeric Gene Transfecting Reagent for Cancer Therapy	Dr. Rakesh Tekade	201821043610	20-11-18

Certificate of Appreciation For best Research Article

Students Name	Dept.	Title of Research Article	Name of Journal
K Pravalika	PC	Trigonelline therapy confers neuroprotection by reduced glutathione-mediated myeloperoxidase expression in an animal model of ischemic stroke	Life Sciences

Gold Medal Awarded during 6th Convocation

Students Name	Dept.	Title of Research Article	Name of Journal
Nripendra Madhab Biswas	PA	Drug development and bioanalytical method validation for a novel anticancer molecule, 4-(Dimethylamino)-2-(p-tolylamino) thiazole-5-carbonitrile	Drug Development Research
Nemani Kavya Sri	PA	Establishment of a quantitative bioanalytical method for an acetylcholinesterase inhibitor Ethyl 3-(2-(4-fluorophenyl) amino)-4-phenyl thiazole-5-yl)-3-oxopropanoate including its physicochemical characterization and in vitro metabolite profiling using LCMS	Journal of Chromatography B

Certificate of Appreciation For best Review Article

Students Name	Dept.	Title of Research Article	Name of Journal
Jackson Saraf	PC	A friend or foe: Calcineurin across the gamut of neurological disorders	ACS Central Science (IF:11.2)

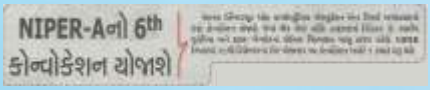
6th Convocation Newspaper & Media Coverage


નાઇપર-એના છઠ્ઠા પદવીદાન સમારોહમાં 69 સ્નાતકો, એકને ડોક્ટરેટની પદવી એનાયત


નાઈપર-એના ગાંધીનગર કેમ્પસ ખાતે છઠ્ઠો પદવીદાન સમારંભ યોજાયો


નાઈપર-એના ગાંધીનગર કેમ્પસનો પદવીદાન સમારંભ યોજાયો


'Non-communicable diseases need country-specific approach'


NIPER-Aનો 6th કોન્વોકેશન યોજાશે


શનિવારે નાઈપરનો છઠ્ઠો પદવીદાન સમારોહ

ગાંધીનગર, તા.૨૭

ગાંધીનગરના પાલજ ખાતેની નેશનલ ઈન્સ્ટિટ્યુટ ઓફ ફાર્માસ્યુટિકલ એજ્યુકેશન એન્ડ રીસર્ચ (નાઈપર-એ) ખાતે તા. ૨૯મી ડિસેમ્બર શનિવારે બપોરે ૧ કલાકે સંસ્થાનો છઠ્ઠો પદવીદાન સમારોહ યોજાશે. આ સમારોહમાં મુખ્ય મહેમાન પદે એઈમ્સના ડાયરેકટર ડો. રણદીપ ગુલેરિયા ઉપસ્થિત રહેશે. આ ઉપરાંત અતિથિ વિશેષ પદે બેંગ્લુરુની આઈ આઈ એ સાયન્સના પ્રો.બિકમજીત બાસુ તથા નાઈપર અમદાવાદના ડાયેરકટર પ્રો. કિરણ કાલીયા ઉપસ્થિત રહેશે.

NIPER JEE 2018

NIPER Joint Entrance Examination 2018 (NIPER JEE-2018), for admission in Masters and Ph.D. programmes of all seven NIPERs was organized by NIPER-Ahmedabad. The preparation for this all India entrance examination commenced six months before the exam date and went through several stages comprising of brochure preparation, procurement of questions from different NIPER faculties and experts, Questions paper preparation for MS and PhD, document verification of students for eligibility, admit card dissemination, centre allocation to different students all over India, actual conduct of online examination, result declaration, ending finally with counselling for both MS and PhD students at NIPER Ahmedabad. JCC meetings at regular intervals were conducted with the participation of all NIPER Directors, Chairman JCC and Chairman NIPER JEE-2018 to discuss issues and progress regarding the smooth conduct of NIPER JEE-2018. The online logistic support for carrying out this exam was provided by Tata consultancy services, which made the entire process smooth and hassle-free.

In total, 2230 and 421 candidates registered for MS/M Pharm/M Tech/MBA Pharma and Ph.D. program respectively for admissions to various NIPERs. Considering a lot of late entries and last-minute rush, the date for online registration was extended till 23rd May to accommodate last minute entrants. The online downloading of admit cards for the exam was made available from 1st June 2018. For making question paper for NIPER JEE-2018 exam, faculties from different NIPERs and experts from pharmaceutical colleges all over India were asked to submit questions for NIPER JEE-2018 which were then carefully scrutinized and evaluated before being finally uploaded for online test.

NIPER JEE 2018

On 10th July 2018, NIPER Joint Entrance Examination (Computer Based Test) was successfully conducted. In total 18 TCS ion centers all over India were allocated for conducting NIPER JEE-2018 online test and for each center, NIPER Ahmedabad staff /faculty were sent ananobserver to monitor smooth and fair conduct of exam. Contrary to earlier followed practices, NIPER JEE-2018 results were declared the very next day of the exam. Meanwhile, in between the duration of NIPER JEE-2018 and counseling, all the documents of students were arranged as per their registration number to ensure ease in document verification during counseling.

The counseling session started with a group discussion for MBA student (9th-10th July) followed by their counseling on 11th July 2018.The panel of experts for group discussion comprised of distinguished faculty from NIPER Mohali, NIPER Hyderabad, NIRMA University, Gujarat University, IIMA Ahmedabad etc. The entire process was lucidly conducted by the joint efforts of NIPER Ahmedabad faculty- and staff in coordination with all seven NIPER representatives who represented respective NIPERs during counseling. Arrangement for snacks and comfortable seating for both parents and students were done on campus, which was appreciated by all the visitors. All seven NIPER booths were also created so that interested students can visit respective NIPER stalls for more information. The best part of this year Joint counseling was that all the MS seats at all NIPER's were filled on the last day of counseling, which is not usually the norm.

MS counseling as followed by Ph.D. interviews for different specialization by a panel of experts comprising of faculties from different NIPER's on 16th-17th July. The results of the interview and written exam were displayed the next day (18th July 2018) and counseling was started from 2.00 pm onwards. To ensure fair practices the entire event was video recorded and all registration related documents were diligently maintained. The entire process ended with handing over of all student's documents to respective NIPERs for further processing at their end, thus bringing down the curtains on NIPER JEE-2018.

3rd Foundation day celebration

On 17th December 2018, NIPER-Ahmedabad celebrated its 3rd Foundation Day at its own campus in Gandhinagar. The Chief Guest for the occasion Shri Sunil Parekh, Chief Corporate Affairs at Advisor @ Zydus Group & Guest of Honour Dr. Kausalya Santhanam, Founder of SciVista and Shri Padmin Buch, Director, Troikaa Pharmaceuticals Ltd graced the occasion. Shri Parekh shared the tips from the success story of his corporate career, which was certainly very motivation as well as filled the eyes of all audience with dreams for their future. Dr. Kausalya Santhanam shared the inside stories and explained basic concepts of patent designing and patent filing towards securing intellectual property right of research. Shri Padmin Buch gave a succinct account of the next stage of IPR protection that deals with finding a complimentary partner or more specifically the buyer of the IPR.

Students Admitted during 2017-18

NIPER-Ahmedabad has a total sanctioned intake of total of 102 Masters and 9 Ph.D. students. NIPER-Ahmedabad has conducted an orientation program for the M.S. Pharm. Batch 2018-19 during 30th July 2018 to 31st July 2018.The statistics of students admitted in various programs at NIPER-Ahmedabad is shown below.

Discipline	No. of Students Admitted
Biotechnology	10
Medicinal Chemistry	16
Medical Devices	10
Natural Products	10
Pharmaceutical Analysis	20
Pharmacology & Toxicology	16
Pharmaceutics	20

New Student Orientation Program

New Student Orientation Program is designed to support new students as they begin their journey at NIPER-Ahmedabad. This Orientation Program is mandatory for all students entering NIPER -Ahmedabad. During this program, the coordinators gradually introduce new students to life at the NIPER -Ahmedabad, from academics and community norms to resources and support services. The orientation program for the year 2018 entrant students of NIPER – Ahmedabad was held between 30th July 2018 to July 2018. The program included a series of extended events that provides an introduction to the stimulating intellectual and social environment at NIPER-Ahmedabad, as well as the abundant resources available in the institute.

New students accompanied by their family members arrived on 29th July 2018 to check in the hostel. Additional details about this program have been shared with the students in-hand by the coordinators of Orientation Program (Dr. Rakesh K. Tekade and Dr. Pinaki Sengupta).

The New Student Orientation Program was designed to:

- To help students navigate the environment of a research tuned academic institute and meet fellow incoming students
- Familiarize students with the standards of the Institutes and principles of its academic community
- Help students navigate the campus and identify the many resources available
- Present tips and key information that will make students' first days, and their transition to NIPER – Ahmedabad, go smoothly!
- Introduce students to faculty, staff and existing students of the Institute
- Acquaint students with the history and traditions of NIPER – Ahmedabad within the context of the history of NIPER's
- Share a portrait of the incoming class in all its diversity and richness as new students are welcomed into the vibrant community

New Student Orientation Program

On the first day of Student Orientation Program, the new students including their accompanied family members were introduced to the campus. The registrar, Shri Ajay Kumar Pathak gave the words of confidence to all parents that their students are in a safe and responsible umbrella and that whole NIPER team will take parental care of their wards. Followed by this inspiration session, the Director "Prof. Kiran Kalia" narrated a quick outline about the Institutes faculty members, grants received publications, national and international collaboration, Industrial MOUs, and other achievements of the institute. She also opened a parent's forum where all parents and relatives of new students were encouraged to put forward their queries as well as seek resourceful resolutions to the same. The faculty members of NIPER-Ahmedabad also talked about their educational background and their thrust area of research and details of their teaching portfolio.

Dr. Himanshu Pandya

> *"Chief Guest Dr. Himanshu Pandya, V.C Gujarat University addressed the Students at the Orientation Programme 2018. He emphasized on the active participation of new generation towards innovation in science and focus on working in those areas which are overlooked, needs attention and serves humanity."*

Dr. Rakesh Tekade, Assistant Professor NIPER-Ahmedabad delivered a very inspiring and eye-opener talk on the topic **"Hear me now - Believe me later:** Your Time under Argument". The presentation comprises of reasonably crafted live-workshop activities, day-to-day examples and research time management tips. The talk emphasized the vision of NIPERs to produce well-organized scientists and not just the technicians and industry workforces. **Mr. Nishank Gohil** and **Alumni Dr. Shivang Chaudhari,** who are also the Alumni of NIPER-A shared their experiences from their association with the institute. Both of them encouraged the new students to live their dreams and make the institute proud in time to come.





Students Pursuing Ph.D.

Department	Name of Student	Year	Supervisor
Biotechnology	Mr. Piyush Gondaliya	2015	Prof. Kiran Kalia
	Ms. HeenaJariyal	2015	Dr. Akshay Srivastava
	Mr. Chintan Chaudhary	2016	Dr. Akshay Srivastava
	Mr. Gopal Agarwal	2016	Dr. Akshay Srivastava
	Mr. Ashok Kumar	2017	Dr. Aditya Sunkaria
	Ms. Swarali Joshi	2018	Prof. Kiran Kalia
Medical Devices	Mr. Namdeve More	2017	Dr. Akshay Srivastava
	Ms. Mounika Choppadandi	2017	Dr. Govinda Kapusetti
	Ms. Priyanka	2018	Dr. Prasoon kumar
Medicinal Chemistry	Mr. Bharat Chaudhary	2015	Dr. Satyasheel Sharma
	Mr. Sagarkumar Patel	2016	Dr. Amit Shard
	Ms. Gargi Vaidya	2017	Dr. Dinesh Kumar
	Ms. Suchita Shinde	2018	Dr. Satyasheel Sharma
	Ms. Komal Pandey	2016	Dr. Abhijeet Kate
Natural Products	Mr. Ashutosh Goswami	2017	Dr. Abhijeet Kate
	Ms. Chaitrali Shevkar	2018	Dr. Abhijeet Kate
Pharmaceutical	Mr. Manish Sharma	2015	Dr. Pinaki Sengupta
	Mr. Prakash Niguram	2015	Dr. Abhijeet Kate
	Ms. Disha Thakkar	2016	Dr. Abhijeet Kate
	Mr. Amit Kumar Sahu	2017	Dr. Pinaki Sengupta
	Mr. Harsh Thakkar	2018	Dr. Ravi Shah
Pharmacology & Toxicology	Mr. Dilip Sharma	2015	Prof. Kiran Kalia
	Ms. Deepaneeta Sarmah	2016	Dr. Pallab Bhattacharya
	Ms. Harpreet Kaur	2017	Dr. Pallab Bhattacharya
	Ms. Monika Sharma	2017	Dr. Amit Khairnar
	Ms. Lakshmi VineelaNalla	2017	Dr. Amit Khairnar
	Mr. Nishant Sharma	2017	Dr. Amit Khairnar
	Mr. Parth Gupta	2018	Prof. Kiran Kalia
Pharmaceutics	Ms. Kritika Nayak	2015	Dr. Manju Misra
	Ms. Shreya Thakkar	2015	Dr. Manju Misra
	Mr. Dignesh Khunt	2016	Dr. Manju Misra
	Ms. Nidhikumari Raval	2016	Dr. Rakesh Tekade
	Ms. Vishakha Tambe	2017	Dr. Rakesh Tekade
	Mr. Dyaneshwar	2017	Dr. Rakesh Tekade
	Mr. Polaka Suryanarayana	2017	Dr. Manju Misra
	Ms. Neelima Anup	2018	Dr. Rakesh Tekade

Students Pursuing M.S. (Pharm.)

Department	Name of Student	Year	Supervisor
Biotechnology	Ms. Anjali Arepalli	2017-19	Dr. Aditya Sunkaria
	Mr. Rajasekhar Reddy	2017-19	Dr. Aditya Sunkaria
	Ms. Pooja Gade	2017-19	Dr. Aditya Sunkaria
	Ms. Chanchal Gupta	2017-19	Dr. Akshay Shrivastava
	Ms. Kavya Jash	2017-19	Prof. Kiran Kaliami
	Ms. Prathibha Kirave	2017-19	Dr. Alok Jain
	Ms. Bhagyashri Kulkarni	2017-19	Prof. Kiran Kalia
	Ms. Aparna Manchikalapudi	2017-19	Dr. Aditya Sunkaria
	Mr. Jigar Patel	2017-19	Dr. Akshay Shrivastava
Medical Devices	Ms. Divya Latha	2017-19	Dr. Govinda Kapusetty
	Ms. Soumya Kondi	2017-19	Dr. Govinda Kapusetty
	Ms. Krishnapriya S.	2017-19	Dr. Akshay Shrivastava
	Ms. Madhura Joshi	2017-19	Dr. Akshay Shrivastava
	Mr. Navanit Pathak	2017-19	Dr. Akshay Shrivastava
	Mr. Mit Patel	2017-19	Dr. Akshay Shrivastava
	Ms. Pc Lalhmangaihzuali	2017-19	Dr. Govinda Kapusetty
	Mr. Prakash Govind	2017-19	Dr. Akshay Shrivastava
	Mr. Sheersha Pramanik	2017-19	Dr. Govinda Kapusetty
Medicinal Chemistry	Mr. Nadeem Ansari	2017-19	Dr. Dinesh Kumar
	Mr. Prashant Auti	2017-19	Dr. Satyasheel Sharma
	Mr. Deepesh Giri	2017-19	Dr. Satyasheel Sharma
	Mr. Deepak Meena	2017-19	Dr. Dinesh Kumar
	Ms. Bhagyashri Rathod	2017-19	Dr. Amit Sharad
	Mr. Siddulu Regu	2017-19	Dr. Amit Sharad
	Mr. Sanjeev Kumar	2017-19	Dr. Dinesh Kumar
	Mr. Shivam Chak	2017-19	Dr. Amit Sharad
	Mr. Syam Lokhande	2017-19	Dr. Dinesh Kumar
	Mr. Anjaneyulu Yakkala	2017-19	Dr. Satyasheel Sharma
Natural Products	Ms. Ashwini Armarkar	2017-19	Dr. Abhijeet Kate
	Ms. Srija Chilamula	2017-19	Dr. Abhijeet Kate
	Mr. Debanjan Chatterjee	2017-19	Dr. Abhijeet Kate
	Ms. Shital Patil	2017-19	Dr. Abhijeet Kate
	Ms. Priya Das	2017-19	Dr. Abhijeet Kate
	Ms. Puspanjali	2017-19	Dr. Abhijeet Kate
Pharmaceutical Analysis	Mr. Dayaraju Adey	2017-19	Dr. Pinaki Sengupta
	Ms. PoojaDhakne	2017-19	Dr. Pinaki Sengupta

Students Pursuing M.S. (Pharm.)

Department	Name of Student	Year	Supervisor
	Mr. Tarang Jadav	2017-19	Dr. Pinaki Sengupta
	Ms. Shraddha Jain	2017-19	Ms. Rajeshwari Rathod
	Ms. Maria Bandookwala	2017-19	Dr. Pinaki Sengupta
	Ms. Meera Shrivas	2017-19	Ms. Rajeshwari Rathod
	Mr. Sidhartha Nagamalli	2017-19	Dr. Pinaki Sengupta
	Ms. Ajitha Reddy	2017-19	Dr. Pinaki Sengupta
	Mr. Srikanth Ponneganti	2017-19	Ms. Rajeshwari Rathod
	Mr. Muralidhar Sharma	2017-19	Ms. Rajeshwari Rathod
	Ms.Bhagyashree Shinde	2017-19	Ms. Rajeshwari Rathod
	Mr. Sitesh Sah	2017-19	Ms. Rajeshwari Rathod
	Ms. Sonali Jain	2017-19	Dr. Pinaki Sengupta
Pharmacology & Toxicology	Mr. Laximan Velip	2017-19	Ms. Rajeshwari Rathod
	Mr. Anil Dharavath	2017-19	Dr. Amit Khairnar
	Ms. Anagha Gadepalli	2017-19	Dr. Amit Khairnar
	Mr. Geetesh Verma	2017-19	Dr. Pallab Bhattacharya
	Ms. Leela Mounica Kamisetty	2017-19	Dr. Pallab Bhattacharya
	Mr. Vignesh Kotian	2017-19	Dr. Pallab Bhattacharya
	Mr. Mohd Rihan	2017-19	Dr. Amit Khairnar
	Mr. Veeresh Pabbala	2017-19	Dr. Pallab Bhattacharya
	Mr. Pathik Parekh	2017-19	Dr. Amit Khairnar
	Ms. Radhika Kesharwani	2017-19	Dr. Pallab Bhattacharya
	Mr. Abhishekh Shahane	2017-19	Dr. Amit Khairnar
Pharmaceutics	Ms. Anuradha Gadeval	2017-19	Dr. Rakesh Tekade
	Ms. Sunita Chawla	2017-19	Dr. Rakesh Tekade
	Ms. Manisha Choudhari	2017-19	Dr. Manju Misra
	Ms. Prachi Dapse	2017-19	Dr. Rakesh Tekade
	Mr. Lalitkumar Darji	2017-19	Dr. Manju Misra
	Mr. Goutham Reddy	2017-19	Dr. Rakesh Tekade
	Mr. Kiran Katrajkar	2017-19	Dr. Manju Misra
	Mr. Devilal Kethavath	2017-19	Dr. Manju Misra
	Mr. Bhavesh Kshirsagar	2017-19	Dr. Manju Misra
	Mr. Akshant Kumawat	2017-19	Dr. Rakesh Tekade
	Ms. Meenakshee Shrivas	2017-19	Dr. Manju Misra
	Mr. Narendra Kumar	2017-19	Dr. Rakesh Tekade
	Mr. Keval Shah	2017-19	Dr. Rakesh Tekade
	Mr. Bhushan Sirsikar	2017-19	Dr. Manju Misra

Placement Cell

The goal of Placement Cell is to provide a platform to the students for gaining valuable experience of working in the Industries. This cell also acts as an interface between various companies seeking well-trained postgraduates in different disciplines. During the placement process, companies are encouraged to visit the campus for pre-placement talks and personal interviews.

Placement Statistics

Batch	Total no of student	Opted for campus placement	Not opted for placement	On campus placed	Not placed	Off-campus placement	Total no of a student placed	Opted for higher studies
2015-17	54	52	2	48	4	N.A	48	2
2016-18	69	60	9	46	6	8	54	9
2017-19	72	58	14	12	44	2	14	12

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Career Guidance

- Seminars by eminent career counselors
- Personality development programmes.
- Daily Career tips

Placements

- Co-ordinating Placement drives of Leading compnies
- Off campus Placement programmes.
- Placement preparatory programmes.

Our Recruiters

Our Recruiters

Publications

Patents

1. **Patent Title :** Mix-and-Deliver-Type' In Vivo applicable Polymeric Gene Transfecting Reagent for Cancer Therapy, Indian Patent No. 201821043610 (Date: 20/11/2018).

   Name of Inventor : Rakesh K. Tekade, Kaushik Kuche, Piyush Gondaliya, VishakhaTambe, Kiran Kalia.

2. **Patent Title :** Targeting Peripheral Neurons using Tramadol hydrochlorideopioid- encapsulated PEGylated albumin nanoparticles for safe and effective antinociceptive activity, Indian Patent No.201921010920 (Date: 20/03/2019).

   Name of Inventor : Rakesh K. Tekade, Vinod Tiwari, Pankaj Bidve, Dilip Sharma, Namrata Prajapati, Nidhi Raval, Kiran Kalia.

3. **Patent Title :** Method for stabilization, loading,and delivery of siRNA therapeutics using anionic polymer. Name of Inventor : Rakesh Kumar Tekade, Nidhi Raval, Hardi Jogi, Piyush Gondaliya, Kiran Kalia.

4. **Patent Title :** Supermacroporus, drug-loaded collagen punctum plug, Indian Patent No.201821045485 (Date: 02/12/2018).

   Name of Inventor : Akshay Srivastava, Gopal Agarwal, Silvy Mary Sebastian.

5. **Patent Title :** Graphene Oxide/Polypyrrole/Polyaniline / Zinc Oxide Nanocomposite Based Electrode for Effective Detection of Cholesterol and Bilirubin, Indian Patent Application No. 201821040222 (Date: 25/10/2018).

   Name of Inventor : Anup Kumar, Namdev More, Kiran Kalia,and Govinda Kapusetti.

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7. Rajat Vashistha, Prasoon Kumar, Arun Kumar Dangi, Naveen Sharma, Deepak Chhabra, and Pratyoosh Shukla. (2019) The quest for cardiovascular interventions: precise modeling and 3D printing of heart valves, Journal of Biological Engineering. 13(1), 1-12. doi.org/10.1186/s13036-018-0132-5.
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19. Aparna Lakshmi Manchikalapudi, Rajasekhar Reddy Chilakala, Kiran Kalia and Aditya Sunkaria. (2019) Evaluating the role of microglial cells in the clearance of A# from Alzheimer's brain, ACS Chemical Neuroscience. DOI: 10.1021/acschemneuro.8b00627.
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Oral Presentations

1 Mr. Manish Kumar Sharma, Presented an Oral Paper on "Metabolite Profiling of Non-banned Substances Using High-Resolution Mass Spectroscopy. Science Slam World Cup, 19th to 24th November 2018 at German Sport University Cologne, Germany.

2 Ms. K. Leela Mounica presentation an oral paper on "Exploring the DAP-kinase pathway in ischemic stroke by intra-arterial mesenchymal stem cells(MSCs) intervention". IBRO-APRC Associate School on Advances in Neurobiology Research, 3rd to 9th March 2019, Amarkantak, Madhya Pradesh.

3 Mr. Nishant Sharma presentation an oral paper on "Investigating the role of enteric neuronal inflammation in the pathogenesis of Parkinson's disease". IBRO-APRC Associate School on Neurological and Neuromuscular disorders: An insight into its Approach and Neurodiagnostic Techniques, 10th to 14th March 2019, Dharan, Nepal.

4 Dr. Pallab Bhattacharya, Presented an Oral Paper on "Intra-arterial delivery of mesenchymal stem cells activates brain-derived growth factor (BDNF) signaling and improves functional recovery after stroke in female rats", World Stroke Congress-2018,Montreal, Canada.

5 Dr. Amit Shard presentation anoral paper on "Design, synthesis, computational validation and biological evaluation of thiazole-based molecules targeting anti-apoptotic Bcl-2 protein." 8th Annual Conference of Indian Academy of Biomedical Sciences, 25th to 27th February 2019,Thiruvananthapuram

6 Dr.Prasoon Kumar, Presented an Oral Paper on"Innovative capillary pump for micro-sampling of simulated blood for diagnostic applications"International Conference on Med-Tech Innovation in Primary Health Care, 28-30 Dec 2018, IIPH, Gandhinagar, Gujarat.

Invited Talks / Workshops / Conference

Invited Talks

1. Dr. Pallab Bhattacharya, Department of Pharmacology and Toxicology delivered a talk on 'Stem cell therapy to aid ischemic stroke recovery: Implications of Inflammasome signaling at IBRO Associate Neuroscience School organized by IGNTU Amarkantak.
2. Dr. Pallab Bhattacharya, Department of Pharmacology and Toxicology delivered a talk on Intraarterial delivery of mesenchymal stem cells activates brain-derived growth factor and improves functional outcome after stroke in female rats at World Congress of Neurology,Montreal,Canada, Oct.2018.He was also awarded Young Investigator Award for the same.
3. Dr. Manju Mishra, "Exploring the potential of Electrospraying process in drying pharmaceutical nanosuspensions at As Resource person in Hands-on-Training on Formulation and Characterization of Nanoparticulate Drug Delivery Systems on 29th September 2018.

Workshops

1. Dr. Pallab Bhattacharya attended the "workshop on Stroke Imaging Workshop" in October 2018
2. Mr. Manish Kumar Sharma attended the workshop on "PHARMACOKINETICS AND PBPK MODELING" on 10th October 2018 at Indian Institute of Science (IISc), Bangalore, India. Montreal, Canada, 2018.
3. Ms. Lakshmi Vineela Nalla attended the workshop on "Next generation sequencing data analysis" from 13-15th Dec 2018 conducted by BDG Life Sciences (OPC) PVT. LTD, Hyderabad, India

Practical Session

1. Dr. Pallab Bhattacharya, Department of Pharmacology and Toxicology, NIPER - Ahmedabad, conducted a Stroke practical session entitled ' MCAo model of ischemic stroke' to national and international participants of IBRO Associate Neuroscience School organized by IGNTU Amarkantak.

Conference

1. Prof. Kiran Kalia, Director of NIPER-Ahmedabad attended "4th International conference on Pharmaceutical Industry India Pharma 2019" 18th– 19th February 2019 at Bengaluru (Invited Member of Panel discussion)
2. Ms. Deepaneeta Sarmah attended "International Stroke Conference 2019" Honolulu, Hawaii, USA, 6th-8th February 2019.
3. Dr. Pallab Bhattacharya, attended World Congress of Neurology, October 2018, Montreal, Canada
4. Dr. Akshay Srivastava attended "Indian Medical Device Industry Conference (IMDIC)" 2018 26th October 2018, AMA, Ahmedabad
5. Dr. Rakesh K.Tekade attended "2nd World Conference on Access to Medical Products-Achieving the SDGs 2030" 9th-11thOctober 2018,WHO and the Ministry of Health of India, New Delhi
6. Dr. Pallab Bhattacharya attended "2nd World Conference on Access to Medical Products-Achieving the SDGs 2030"9th-11thOctober 2018,WHO and the Ministry of Health of India, New Delhi
7. Dr. Akshay Srivastava attended "2nd World Conference on Access to Medical Products-Achieving the SDGs 2030"9th-11thOctober 2018,WHO and the Ministry of Health of India, New Delhi

Conference / International Exchange Programs

8. Dr. Abhijeet Kate attended "2nd World Conference on Access to Medical Products-Achieving the SDGs 2030" 9th-11th October 2018,WHO and the Ministry of Health of India, New Delhi
9. Dr. Govinda Kapusetti attended "Nanobiotech. 2018" 24th -27th October 2018, AIIMS New Delhi and IIT Delhi,Delhi (Invited Member of Panel discussion)
10. Mr. Amit Kumar Sahu attended Third SSX India 2018 conference, 10th to 13th October 2018 at Indian Institute of Science (IISc), Bangalore, India
11. Mr. Manish Kumar Sharma attended Third SSX India 2018 conference, 10th to 13th October 2018 at Indian Institute of Science (IISc), Bangalore, India
12. Debanjan Chatterjee attended Screening of plants possessing the anti diabetic potential to find small molecules which acts as glucagon like peptide-1 receptor agonist International Conference", DDNPTM 2018. NIPER SASNagar.
13. Pandey Komal attended "Plant "Gall tissue"; A probable source of novel bioactivemolecules" International Conference, DDNPTM 2018, NIPER SAS Nagar.
14. Ashwini Armarkar attended Isolation and characterization ofbioactive molecules from endolichenic fungi". International Conference, DDNPTM 2018, NIPER SAS Nagar.
15. Mr. Namdev More attended "6th World Congress on Nanomedical Sciences"7th-9th January 2019, held at Vigyan Bhawan, New Delhi,
16. Mr. Sagarkumar Patel attended "25th ISCB International Conference (ISCBC-2019)" 12th - 14th January 2019 held at Hotel Golden Tulip, Lucknow, India
17. Mr. Bharat Chaudhary attended "25th ISCB International Conference (ISCBC-2019)" 12th - 14th January 2019 held at Hotel Golden Tulip, Lucknow, India
18. Nishant Sharma attended 7th International conference on Molecular Signaling, 2019, NCCS Pune, 23rd -25th Jan.2019.

International Exchange programs

1 Dr. Govinda Kapusetti, Assistant Professor, successfully completed the Japan-Asia youth exchange program in science titled "Lead by learn: Pursuit of academic excellence in Japan", funded by the Japan Science and Technology Agency and organized by the University of Miyazaki from December 12 to December 21, 2018.

Honors and Awards/Achievements

Institute Achievement

- **Establishment of Institution Innovation Council (IIC) :** To foster the culture of "Innovation & Entrepreneurship" further, NIPER-Ahmedabad constituted the Institution Innovation Council (IIC) as per the Norms of Innovation Cell, Ministry of HRD, Govt. of India.

Faculty Achievements

- **Young Investigator Award :-** Dr. Pallab Bhattacharya has been awarded WSC 2018 Young Investigator Award and participates in the 11th World Stroke Congress-2018 at Montreal, Canada. He is among the 34 winners from the world for this Award.
- **Ramanujan fellow :-** Dr. Dinesh Kumar Asst. Professor, NIPER-A for getting awarded Ramanujan fellow 2018 Department of Science & Technology, Government of India.
- **Ramalingaswamy Re-entry Fellowship 2018 :-** Dr. Amit Khairnar Asst. Professor, NIPER-A for getting awarded Ramalingaswamy Re-entry Fellowship 2018 Dept. of Biotechnology (DBT) Ministry of Science & Technology Govt. of India.

Student Achievement

- **DST International Travel award :-** Ms. Harpreet Kaur has been awarded DST International Travel award for her presentation at Vascular Biology Conference(American Heart Associations),Boston,USA.
- **ICMR-Senior Research Fellowship :-** Ms. Vishakha Tambe from the Department of Pharmaceutics has been awarded the ICMR-Senior Research Fellowship (2019-2022) for her study entitled "Aptamer Targeted Nanohybrid for Chemo-Photothermal Therapy of Leukemia: An In vitro Proof of Concept" under the guidance of Dr. Rakesh K. Tekade.
- **ICMR-Senior Research Fellowship :-** Ms. Harpreet Kaur, Ph.D. scholar Deptt. of Pharmacology and Toxicology, NIPER-A has been awarded ICMR-Senior Research Fellowship (2019-2022) for her study entitled "Stem Cell Therapy to Counteract Endoplasmic Reticulum Stress in Ischemic stroke" under the guidance of Dr. Pallab Bhattacharya.
- **Best Poster Award :-** Ph.D. Student of Pharmacology and Toxicology Department Ms. Harpreet Kaur won Best E-Poster Award at The XIII Indian National Stroke Conference (INSC-2019), held at Grand O7 (Forum), Bhopal, Ahmedabad, Gujarat from 15th-17th March 2019. Title of her presentation was "Intra-arterial delivery of mesenchymal stem cells modulates neuronal calcineurin expression in a rodent model of ischemic stroke".
- **IBRO-Young Investigator Training Programme (YITP) :-** Ms. Deepaneeta Sarmah and Ms. Harpreet Kaur from Department of Pharmacology have been selected for IBRO-Young Investigator Training Programme (YITP).They are amongst 57 across the world and 4 among India to be selected for this programme.
- **Raman-Charpak Fellowship 2018 :-** Ms. Deepaneeta Sarmah, PhD scholar Deptt. of Pharmacology and Toxicology has been awarded prestigious Raman-Charpak Fellowship awarded jointly by DST and CEFIPRA. She is among 25 awardees from India and among 5 in the category of Biological/Medical Science awardees. Ms. Deepaneeta will work on the collaborative Ph.D. research project at INSERM France.

Honors and Awards/Achievements

- **Best Poster Award :-** Ph.D. Student of Medical Device Department Mr. Namdev More under the mentorship of Dr. Govinda Kapusetti and Dr. Akshay Srivastava won Best Poster Award in a poster presentation at ISNSCON 2018 6th World Congress on Nanomedical Sciences, held at Vigyan Bhawan, New Delhi, 7th - 9th January 2019. Title of his presentation was "Smart Piezoelectric polyvinylidene fluoride (PVDF) nanoparticle encapsulated poly (3-hydroxybutyrate-co-3 hydroxy valerate) electrospun scaffold for cartilage regeneration".
- **Selected in IBRO-APRC :-** Ms. Kamisetty Leela Mounica M.S Student of Department Of Pharmacology and Toxicology was selected in IBRO-APRC Associate school at Indira Gandhi National Tribal University (IGNTU) 2019, Amarkantak (M.P.).
- **Selected in IBRO APRC School Nepal :-** Mr. Nishant Sharma Ph.D. scholar Department Of Pharmacology and Toxicology was selected in IBRO-APRC Associate School on Neurological and Neuromuscular Disorders. Nepal 2019.
- **International Traveling Grant :-** Ms. Deepaneeta Sarmah Ph.D. Research Scholar (Department of Pharmacology and Toxicology) Awarded with International Travel Support (ITS) SERB, Deptt. of Science and Technology (DST), India Award to present her research at International Stroke Conference (ISC-2019) (American Heart/Stroke Association) at Hawaii, USA.
- **2nd prize award :-** Team Plug-IN (Gopal Agarwal, Chintan Chaudhary, Mit Patel, Chanchal Gupta and KrishnaPriya S. (Mentors: Dr. Akshay Srivastava and Dr. Prasoon Kumar)) won Second prize (Award money Rs. 3 lakhs) at Biotechnology Entrepreneurship Student Teams (BEST-ABLE-2018) competition sponsored by the Department of Biotechnology, Government of India.
- **1st prize for poster presentation :-** Mr. Mit Patel has won first prize in Shushruta Innovation award for poster presentation at Indian Medical Device Industry Conference (IMDI conference) 2018, held at AMA.
- **3rd prize for poster presentation :-** Ms. Krishnapriya has won third prize in Shushruta Innovation award for poster presentation at Indian Medical Device Industry Conference (IMDI conference) 2018, held at AMA, Ahmedabad.
- Mr. Manish Kumar Sharma was selected by an evaluation board to participate in the **Science Slam World Cup 2018 at the German Sport University Cologne.**
- **International Traveling Grant** :- Ms. Deepaneeta Sarmah Ph.D. Research Scholar (Department of Pharmacology and Toxicology) Awarded with IBRO International Travel Award to present her research at International Stroke Conference(ISC-2019) (American Heart/Stroke Association) at Hawaii, USA.
- NIPER-A Ph.D. student Ms. Kritika Nayak Selected for **"The Newton Bhabha Ph.D.Programme at University of Liverpool, UK.**
- NIPER-A Ph.D. Student Dilip Sharma and Shreya Thakkar invited for **"The 68th Lindau Noble Laureate Meeting" Germany 2018.**
- Ms.Harpreet Kaur (Ph.D. Research Scholar) was selected in **IBRO-APRC Neuroscience School 2018 at AIIMS, New Delhi.**
- Mr.VigneshKotain and Mr.AkshantKumawat are selected amongst top 50 students across India in **Novartis Biotechnology Leadership Camp (Bio Camp 2018), Hyderabad.**
- **1st prize for poster presentation :-** Shital Shinde, SagarkumarPatel, Amit Shard. Utilizing Boronic acid derivatives to target the sweet spot of the tumour. National Conference on Chemistry of Materiales and Biologicos. IIT Gandhinagar. 4th-5th Jan 2018.

Honors and Awards/Achievements

- **Best Poster Award :-** Anup Kumar, Mukty Shinha. Electrochemical biosensor based on nanocomposite for the detection of biomarkers of liver diseases. IIT-Indore/ Biosciences and Biomedical Technologies (eBBT) 2018, Indore, January 2018.
- **Best Poster Award :-** Pratiksha Kochar, Viral Shah. Exploring the potential of lipid vesicle-based formulation for transfollicular drug delivery in androgenic alopecia treatment. IIT-Indore/ Biosciences and Biomedical Technologies (eBBT) 2018, Indore, January 2018.
- **Best Poster Award :-** Abhishek Kulkarni, Chaitrali Shevkar, Anita Mahapatra. In the vitro anticancer activity of some Indian medicinal plants against neuroblastoma. NIPiCON-2018 Institute of Pharmacy, Nirma University, 2018, Ahmedabad, January 2018. Received Best Poster Award (2nd) for the Poster presentation.
- **Best Poster Award :-** Disha Thakkar, Abhijeet kate. In silico and in vitro metabolite identification and characterization of brexpiprazole by LC-QTOF mass spectrometry. Boston society./ Applied Pharmaceutical Analysis-India2018 conference, Pune, February 2018.
- **2nd Prize in State level Quiz competition :-** Kamarapu Mounika, Anjali Arepalli, Awarded 2nd Prize in biocalyx state level competition Quiz 2018" held at St. Xavier's College, Ahmedabad. March 2018
- **Best pharmacist Award :-** Namdev More from Dept. Of Medical Device Awarded as "Best pharmacist Award (student)" from Green cross Foundation Maharashtra.

Research Projects

Project Title	Amount	Duration	Principal Investigator	Funding Body
Bioprospecting endolichenicfungi from Mangroves in Negombo lagoon in Sri Lanka and Gulf of Khambat, Gulf of Kutch from Gujarat India; An untapped treasure trove for the discovery of special structures and bioactive compounds (Grant No: DST/INT/SL/P-22/2016)	47 lakhs	2017-2020	Prof. Kiran Kalia Prof. Priyali Pranagama University of Kelniya, Sri Lanka	DST, Indo Sri Lanka Joint Research Programme
Bio-engineered three-dimensional stem cell niche for intervertebral Disc repair and regeneration (Grant No: ECR/2016/002038)	38.1 lakhs	2017-2020	Dr. Akshay Srivastava	DST, SERB
Aptamer-targeted dendronized polymeric nanoparticles to deliver Anti-miRNA for treatment of Triple Negative Breast Cancer (Grant No: ECR/2016/001964)	38.1 lakhs	2018-2021	Dr. Rakesh Tekade	DST, SERB
Triple punch approach for triple negative breast cancer by delivering siRNA and doxorubicin using graphene oxide wrapped polymeric nanoparticles (Grant No: PDF/2016/003329)	25 lakhs	2017-2019	Dr. Rakesh Tekade	DST, SERB
Aptamer Targeted Nanohybrid for Chemo-Photothermal Therapy of Leukemia: An In vitro Proof of Concept (Grant No: 5/3/8/33/ITR-F/2018-ITR)	12.7 lakhs	2019-2022	Dr. Rakesh Tekade	ICMR
Regulatory non-coding RNA mediated mesenchymal stem cell engineering: Safety and efficacy study in a rodent model of ischemic stroke (Grant No: SB/YS/LS-196/2014)	29.30 lakhs	2016-2019	Dr. Pallab Bhattacharya	DST, SERB
Stem Cell Therapy to Counteract Endoplasmic Reticulum Stress in Ischemic stroke (Grant No: 5/3/8/16/ITR-F/2019-ITR)	12.7 lakhs	2019-2022	Dr. Pallab Bhattacharya	ICMR
Design and Construction of Fluorine-Containing Scaffolds via C-H Bond Activation (Grant No: DST/INSPIRE/04/2016/000414)	35 lakhs	2017-2021	Dr. Satyasheel Sharma	DST, INSPIRE

Research Projects

Project Title	Amount	Duration	Principal Investigator	Funding Body
Exploring the molecular mechanism of butter oil enriched nanoformulation in enhancing nasal to brain delivery and its potential role in promoting neurogenesis (Grant No:EMR/2016/007966)	34.69 lakhs	2017-2020	Dr.Manju Mishra,	DST SERB
Industrial Project from Natreon Inc, the USA Exploring neuroprotective effects of Phyllanthus Emblica in an animal model of ischemic stroke.	$25,800	2018-2020	Dr.Pallab Bhattacharya	Natreon Inc, USA
Bioengineered Cell Instructive collagen hydrogel patch for intervertebral disc repair and regeneration (BT/HRD/35/02/2006)	83.50 lakhs	2018-2023	Dr.Akshay Srivastava	Ramalinga swamy fellowship DBT
Light amplifying carbon quantum dot embedded contact lenses for treatment of night blindness (Grant No: BT/PR27025/NNT/28/1535/2017)	47 lakhs	2018-2021	Dr.Govinda Kapusetti	DBT
To study the Protective effect of Sanat's Herbal formulation (SHF) on human lung epithelial cells exposed to Fine particulate matter and response to the allergy.	6.62 lakhs	2018-2019	Dr. Amit Khairnar	Sanat Products Ltd, New Delhi
Is Enteric Neuronal inflammation a starting point of Parkinsons Disease Pathogenesis (Grant No: BT/HRD/35/02/2006)	113.60 lakhs	2019-2024	Dr. Amit Khairnar	DBT
Development of Potential anti-TB Drugs Targeting Energy Inhibition Pathway Utilizing C-H Bond Functionalization as Key Synthetic Tool (Grant No: SB/S2/RJN-135/2017)	109.10 lakhs	2018-22	Dr. Dinesh Kumar	DST-SERB

International Collaborations

NIPER-Ahmedabad is pleased to announce its initiative to establish an International Research Collaboration with faculties from Harvard Medical School, Boston, USA, MD, USA, Massachusetts Institute of Technology, USA; University of Washington, Seattle, USA; University of Newcastle, School of Biomedical Sciences and Pharmacy, Australia; University of Mississippi School of Pharmacy, USA; Wayne State University Use-inspired Biomaterials & Integrated Nano Delivery Systems Laboratory, USA; and National University of Ireland, Galway, Ireland. Under this initiative research faculties from these foreign Universities/Institutes have agreed to establish future research collaborations and academic partnership with the faculty members from NIPER-Ahmedabad.

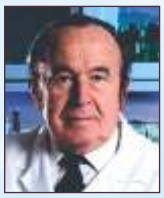
Dr. Pallab Bhattacharya, Department of Pharmacology and Toxicology has a research collaboration with following faculties from Harvard Medical School, Boston, USA.

Faculty from Harvard Medical School,Boston, USA	Area of Research
 **Prof. Larry Benowitz** F.M. Kirby Neurobiology Center, Boston Children's Hospital, Harvard Medical School, Boston, USA	Stroke Biology
 **Prof. Nutan Sharma** Director, Department of Neurology, Massachusetts General Hospital, Harvard Medical School,Boston, USA	Neuroscience Research
 **Dr. Khalid Shah** Director, Center for Stem Cell Therapeutics and Imaging, Department of Radiology and Neurology, Massachusetts General Hospital, Harvard Medical School, Boston, USA	Stem Cell Biology / Neuroscience Research
 **Dr. Ali Sultan** Chief, Division of Vascular and Endovascular Neurosurgery, Department of Neurosurgery, Brigham and Women's Hospital, Harvard Medical School, Boston, USA	Stroke Biology
 **Dr. Nirav J. Patel** Cerebrovascular and Endovascular Neurosurgery, Brigham and Women's Hospital, Harvard Medical School, Boston, USA	Stroke Biology

International Collaborations

Dr. Pallab Bhattacharya, Department of Pharmacology and Toxicology has a research collaboration with following faculties from Massachusetts Institute of Technology, USA and Miller School of Medicine, USA

Faculty from Massachusetts Institute of Technology, USA	Area of Research
 **Prof. Emilio Bizzi** McGovern Institute for Brain Research, Massachusetts Institute of Technology, USA	Stroke Biology

Faculty from Miller School of Medicine, USA	Area of Research
 **Prof. Dileep R Yavagal** Dept. of Neurology, Miller School of Medicine, USA	Stroke Biology
 **Nobel Laureate Andrew Scally,** Sylvester Cancer Research Centre, Miller School of Medicine, USA	Stroke Biology
 **Dr. Kunjan R Dave** Dept. of Neurology, Miller School of Medicine, USA	Stroke Biology

International Collaborations

Dr. Rakesh K. Tekade, Assistant Professor, Department of Pharmaceuticshas established a research collaboration with the following faculty members from the University of Newcastle, School of Biomedical Sciences and Pharmacy, Australia; the University of Mississippi School of Pharmacy, USA; and the Wayne State University Use-inspired Biomaterials & Integrated Nano Delivery Systems Laboratory, USA.

Faculty from NIPER-A collaborated withUniversity of Newcastle, School of Biomedical Sciences and Pharmacy, Australia	Area of Research

Prof. Philp M. Hansbro,
Professor, NHMRC Fellow and Brawn Fellow
School of Biomedical Sciences and Pharmacy
The University of Newcastle,
Callaghan, NSW 2308, Australia.

Immunology and Microbiology, bacterial and viral infections and obstructive airway diseases such as asthma

Faculty from NIPER-A collaborated with De Montfort University, The Gateway, Leicester, UK	Area of Research

Prof. Antony D'Emanuele
Professor and Head of School
School/department: Leicester School of Pharmacy
De Montfort University, The Gateway,
Leicester, LE1 9BH UK

Dendrimer-based nanoformulation approaches, Formulation development of site-specific polymeric Drug Delivery systems

Faculty from NIPER-A collaborated with University of Mississippi School of Pharmacy, USA	Area of Research

Prof. Mahavir B. Chougule,
Associate Professor of Pharmaceutics,
Department of Pharmaceutics and Drug Delivery,
School of Pharmacy, University of Mississippi,
Mississippi, TCRC 204 A, MS, USA

Drug and Gene Co-delivery, Multifunctional Nanoparticle, Cancer Therapy, Inhalation delivery

Faculty from NIPER-A collaborated with Liverpool John Moores University, Liverpool, UK	Area of Research

Prof. Gillian Hutcheon,
Faculty in the Department of Pharmacy and Biomolecular Sciences
Liverpool John Moores University, Liverpool, UK
Rodney House, 70 Mount Pleasant
Liverpool L3 5UX, UK

Polymer chemistry and drug delivery biodegradable polymers for the Micro & nanoparticle delivery

International Collaborations

Faculty from NIPER-A collaborated with Wayne State University Use-inspired Biomaterials & Integrated Nano Delivery Systems Laboratory, USA	Area of Research
 **Prof. Abhay Singh Chauhan,** Director, Use-inspired Biomaterials & Integrated Nano Delivery Systems Laboratory Department of Pharmaceutical Sciences Wayne State University	Use-inspired Biomaterials, Polymeric Drug and Gene Delivery, Nanomedicine and Nanotechnology

Dr. Govinda Kapusetti, Assistant Professor, Department of Medical Devices, NIPER-A has a research collaboration with the following faculty from Johns Hopkins University School of Medicine, Baltimore, MD, USA

Faculty from Johns Hopkins University School of Medicine, Baltimore, MD, USA	Area of Research
 **Dr. Anirudha Singh** Assistant Professor, Brady Urological Institute, The Johns Hopkins University School of Medicine, Baltimore, MD, USA	Smart 3D scaffolds for articular cartilage regeneration

Dr.Akshay Srivastava, AssistantProfessor, Department of Medical Deviceshas a research collaboration with facultyfrom Centre for Researchin Medical Device National University of Ireland, Galway

Faculty from NIPER-A collaborated with	Area of Research
 **Dr. Abhay Pandit** Director of a Science Foundation Ireland-funded Centre for Research in Medical Devices (CÚRAM) at the National University of Ireland, Galway.	Medical Devices

Adjunct Faculty

NIPER-A has engaged following eminent academicians and research scientists as Adjunct Professors, who can give their expert guidance on research and teaching. Adjunct professors agreed to undergo vibrant sessions of scientific discussions as well as engage classes online. They have also expressed their interest to personally visit NIPER-Ahmedabad at mutually agreed times in the near future. NIPER-A expresses deep thanks to all Adjunct Professors and looks forward to their key role in the development of NIPER-A and the partner institute.

Name of Adjunct Faculty and affiliation

Prof. Larry Benowitz
DProfessor of Surgery and Ophthalmology
Institute : Harvard Medical School, USA

Prof. Dileep R Yavagal
Professor of Clinical Neurology and Neurosurgery
Institute : Miller School of Medicine, USA

Prof. Antony D'Emanuele
Professor of Pharmaceutical Sciences
Institute : De Montfort University, UK

Prof. Philp M. Hansbro
Professor
Institute : The University of Newcastle, Australia

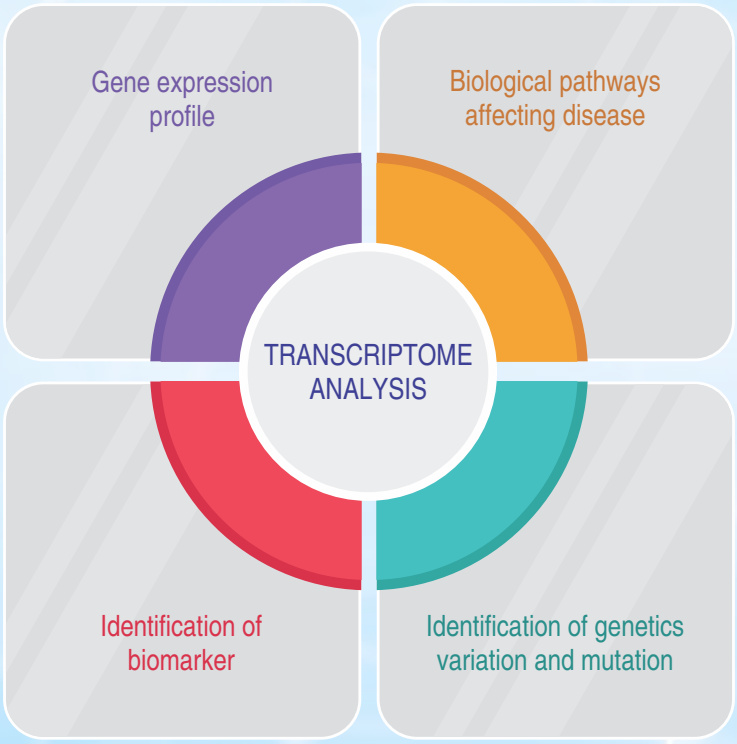
Dr. Mukul Jain
Senior Vice President
Institute : Zydus Research Centre, India

Prof.Abhay Pandit
Professor of Biomedical Engineering
Institute : NUI, Galway, Ireland

Biotechnology

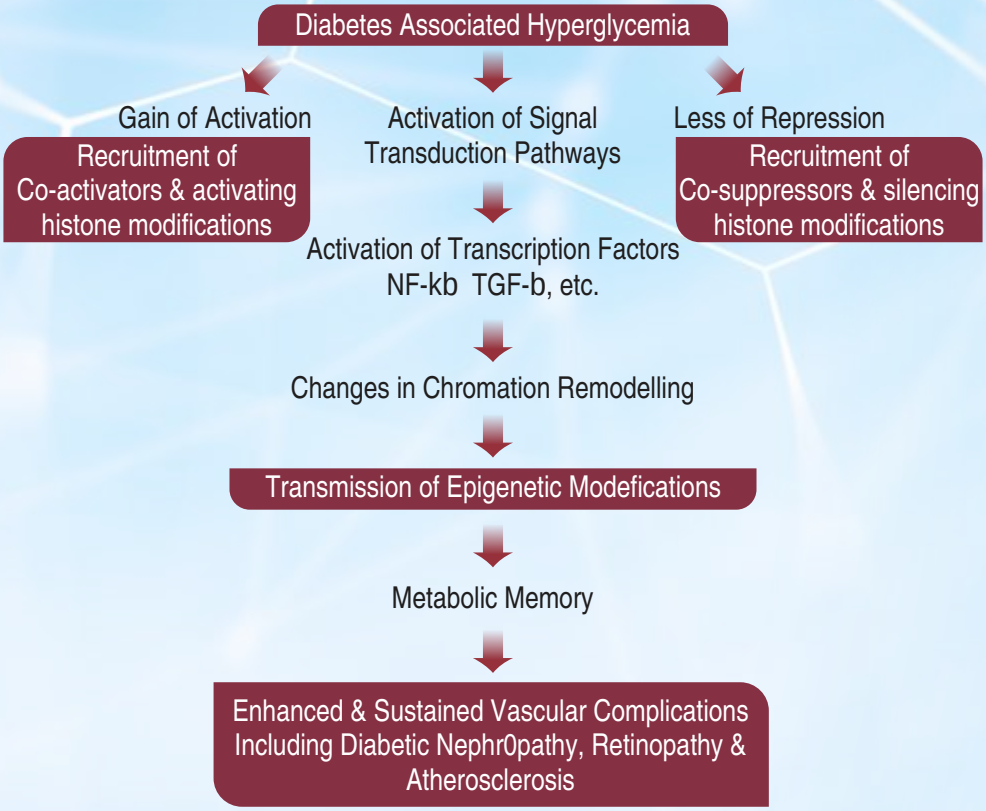
Genetic profile and biomarker identification of OSCC patients through transcriptome analysis

We are currently working in an extensive area of transcriptome analysis of tobacco-addicted patients of oral squamous cell carcinoma. This study is being carried out on tumour samples taken from Gujarat population. The idea or importance of this work seems to lie within the fact that Gujarat has been reported to be having the highest number of oral cancer reports, which is increasing year-by-year. Transcriptome analysis is an aspect which comprises of whole genomic data of the affected patients. This data is ultimately being useful to find out the Up regulated and down regulated genes and significant biomarkers in the samples and their respective validation under process. The results obtained can pave the way for identifying better targeting approaches and the idea of personalized medicine which is presently in the boom.



Epigenetic modulation in diabetic nephropathy through miRNA

We are currently working on emerging epigenetic mechanisms underlying Diabetic nephropathy, which involves micro vascular complications associated with both type 1 & type 2 Diabetes Mellitus It may be noted that Diabetes Mellitus is a leading cause of renal failure. Epigenetics plays a vital role in Diabetic Nephropathy comprises a study of heritable changes in gene expression without alterations in the underlying DNA sequences. Key epigenetic regulators are micro RNAs which are a family of small non-coding RNAs. In the case of Diabetes Mellitus, due to engagement of cytokines & growth factors with their receptors trigger signal transduction cascades, these affect epigenetic states such as DNA methylation & chromatin histone modification to augment the expression of pro-fibrotic & inflammatory genes which further leads to Diabetic Nephropathy. Hence, miRNAs could serve as the new therapeutic targets for Diabetic Nephropathy.



Targeting breast cancer stem cells using collateral lethality approach

Collateral lethality, also known as synthetic lethality of housekeeping genes is a new trend for the discover cancer specific vulnerabilities caused by passenger deletions or deletions in non-tumor suppressor genes. It explains the concept that some of the genes are co-deleted with tumour suppressor genes which perform housekeeping functions and can be targeted. Sometimes passenger gene deletions render non-essential pathways to become essential. We are working on enzymes from these pathways, which may act as specific target to sensitize cancer cells and mediate cellular death.

Bioengineered three-dimensional stem cell niche for intervertebral disc repair and regeneration

Recent advances in cellular and molecular biology have provided an exciting approach to regenerate intervertebral disc (IVD) that focuses on the delivery of viable and therapeutically important cells to the degenerating disc. AF cell population has shown progenitor cell-like functions, which can differentiate in to osteogenic and adipogenic cell lineage. However, these stem cells reside in the highly specialized microenvironment in healthy IVD and tend to lose their phenotype in successive sub-culturing in vitro. The aligned collagen based biomaterial scaffold would mimic the IVD microenvironment by providing an artificial functional niche for maintaining progenitor cell function. Hence, my hypothesis is, a population of proliferative annulus fibrosis cells present in highly controlled IVD microenvironment, will help in regeneration of herniated AF region of IVD using functional biomaterial niche.

Polymeric conduit for spinal cord regeneration

Due to irreversibly neuronal loss and glial scar deposition spinal cord injury causes a permanent neurological dsyfunction. The developed conduit allows faster axonal regeneration rate. The porous network of the nerve conduit will allow transfer of nutrients and oxygen through the cryo nerve conduit. Slow degrading polymeric conduit will help in nerve regeneration at the site of the injury for prolonged period of time. The conduit also allows the incorporation of mesenchymal stem cells which would help in regeneration of injured spinal cord. The MSC loaded scaffolds provide axonal regeneration in the injured spinal cord and improve locomotor movements and function associated with the spinal cord. These materials can also be incorporated with nerve growth factor for the sustained release of nerve growth factor will also provide nerve growth factor supply for the over the time period. Overall, the developed nerve conduits will fulfill the ideal characteristic of nerve guidance conduit and the porous network of the nerve guidance conduits will add an advantage for faster neuron regeneration.

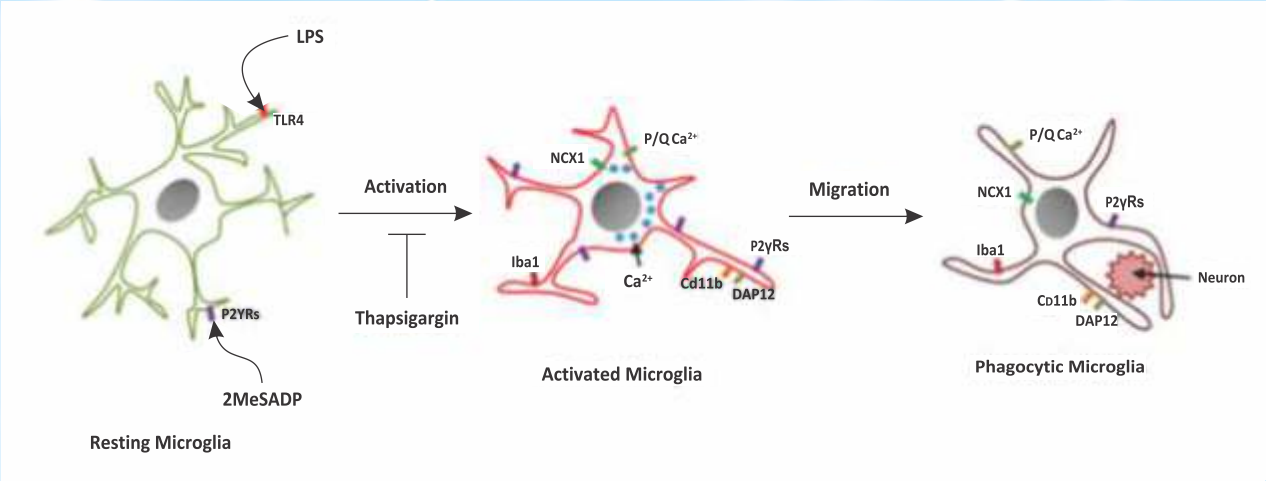
Role of microglial cells in clearance of Aβ from Alzheimer's brain

ver increasing incidence of Alzheimer's diseases (AD) has been reported all over the globe and practically no drug is currently available for its treatment. Since last 15 years, not a single drug came out of clinical trials. The researchers are yet to discover a drug that could specifically target AD, in fact the drugs that are about to launch in the global market either belongs to natural compounds or are already approved drugs targeting other diseases. So, we need to shift our focus on finding novel targets which are more specific and could either detect or inhibit the disease progression at very early stage. Microglias are the only resident innate immune cells of the brain that are originated from erythromyeloid progenitors. They migrate to the brain during early embryonic development, although their number is less (~ 5 to 10%) but they could act as guardians of the brain. It has been shown that the extracellular deposits of Aβ continuously phagocytosed by microglia in healthy individuals, but this ability would decrease with the age and lead to development of AD. So, we are exploring the possibility whether microglial cells could be utilized as an early predictor of the AD progression.

Migration and phagocytic ability of activated microglia during post-natal development

Microglia play an important role in synaptic pruning and controlled phagocytosis of neuronal cells during developmental stages. Recent evidence has revealed that microglia participate in important developmental functions like phagocytic elimination of cell debris, guiding newly formed axons in the white matter tracts and maintaining synaptic plasticity. However, the mechanisms that regulate these functions are not completely understood. So we designed a study to investigate the role of purinergic signalling in microglial migration and phagocytic activity during post-natal brain development. Our results showed that lipopolysaccharide (LPS) treatment induced microglial activation preceded by up-regulation of the purinergic receptors (P2Y2, P2Y6 and P2Y12). We also observed that intracellular Ca^{2+} plays an important role in puringeric receptor-mediated microglial activation.

In addition, activated microglia also showed increased expression of DAP12/CD11b which suggest induction of the phagocytic activity of microglia during post-natal brain development. Hence, strategies aimed at activation of purinergic and adenosine receptors may trigger or suppresses the activity of microglia during development which may be helpful in designing treatment paradigms in neurodevelopmental disorders (Sunkaria et al., 2015, Molecular Neurobiology).



Postnatal proteasome inhibition promotes amyloid-β aggregation

Ubiquitin-proteasome system (UPS) is involved in many biological processes, including aspects of neuronal development ranging from axon morphogenesis and synapse refinement. Postnatal brain development has been considered as crucial period which comprises formation and refinement of synaptic connections. Previous studies have shown that ubiquitin and UPS proteins are abundant in newly formed presynaptic terminals and mice incapable of degrading the ubiquitinated proteins had defective synapse formation. Although, exact period of synapse development is not completely understood but initial postnatal weeks are crucial for the synaptogenesis in pyramidal neurons. Ever increasing evidence has shown that Aβ peptides have detrimental effects on synaptic function. However, not much has been studied about the relationship between Aβ aggregation, synaptic and neuron loss during early stages of brain development. It has been shown that early intraneuronal accumulation of Aβ peptides is one of the key events leading to synaptic and neuronal dysfunction. To understand this relationship, we examined the effect of postnatal proteasome inhibition on hippocampus-based spatial memory formation during adulthood. The molecular, behavioral and histological data suggested that inhibiting proteasome activity during postnatal brain development could impair spatial learning during later stages of life (Sunkaria et al., 2017, Neuroscience).

Design, Computational Validation, Synthesis and Biological Evaluation of Thiazole based Molecules as Anticancer Agents

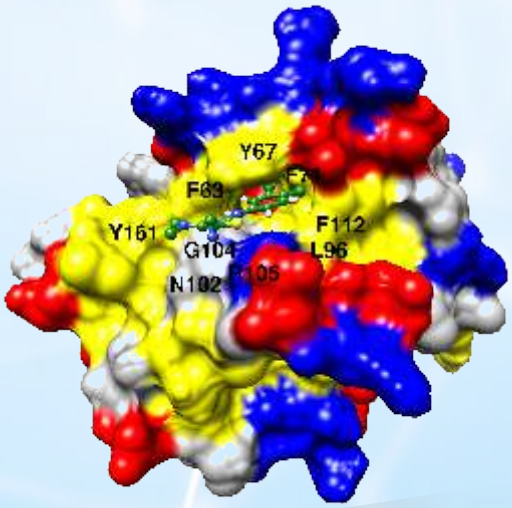
Effective abolition of cancer warrants treatment modalities directed towards specific pathways dysregulated in tumor proliferation and survival. The antiapoptotic Bcl-2 proteins are significantly altered in several tumor types positioning them as striking targets for therapeutic intervention. Here we designed, synthesized, computationally validated and biologically evaluated structurally optimized thiazole based small molecules. The virtually designed molecules were subjected to rigorous docking and ADMET studies. It led to qualification of 23 skeletally diverse thiazole based molecules, which were synthesized in 3 steps (up to 80% yield) utilising cheap and readily available starting materials. The molecules were in vitro evaluated against Bcl-2-Jurkat, A-431cell lines and ARPE-19 cell lines which represents human Bcl-2, epidermoid carcinoma and normal cells respectively. The molecules simultaneously inhibited Bcl-2 jurkat cells in vitro without causing detectable toxicity to normal cells. Among them four molecules showed potent activities against Bcl-2 Jurkat and A-431cell lines at concentrations ranging.

One of the molecule almost equipotent in both the cell line was subjected to molecular dynamics (MD) simulation with death defying anti-apoptotic Bcl-2 proteins (4IEH). It was shown that it interacted with protein majorly via hydrophobic interactions and few electrostatic interactions were also observed. During the MD simulation conformational changes in Bcl-2 protein was observed that facilitates the movement of ligand inside the cavity of protein (majorly involving α3, α4, α5, helices). Flow cytometry analysis of it suggested that cell undergoes 87.66% Annexin A5 positive. It was proved that cell followed apoptotic pathway leading to cell death. The chemical intuition was fully validated by computation and biological results which confirms that molecules have the potential to be developed downstream into potent and safer anticancer agents.

Dissecting the molecular mechanisms by which normal cells become cancerous and metastasize.

We are working in the area of signal transduction in carcinogenesis. Our laboratory investigates the intracellular pathways that contribute to malignant transformation and metastatic dissemination of cancer cells in various models, including oral, breast, prostate, and lung cancer. Through a transcriptome analysis of oral cancer patients, we have identified several genes and transcription factors that are significantly upregulated in oral cancer. One such protein is Lama3. One of our major goals is to elucidate the role of Lama3 as a modulator of proliferation, survival, apoptosis, differentiation, transformation and set mechanistic bases for targeting this protein for cancer treatment. Lama 3 belongs to the laminin family of secreted molecules that are known to play essential role not only in the formation and function of the basement membrane but also in regulating cell migration and signal transduction.

Besides, our giant challenge is to elucidate and establish such complex signalling mechanism for other upregulated candidate genes from transcriptome analysis, with the ultimate goal of finding novel targeting molecules for cancer therapeutics, using cellular, genetic and pharmacological approaches. We are also in the process of evaluating the various natural and/or chemical compounds synthesised in Medicinal Chemistry department of NIPER-Ahmedabad, if they (a) possess anti-cancer activity, and (b) have inhibitory activity towards Lama3.



Medicinal Chemistry

Multi target directed Peptides and peptidomemetics in Alzheimer's proteopathy

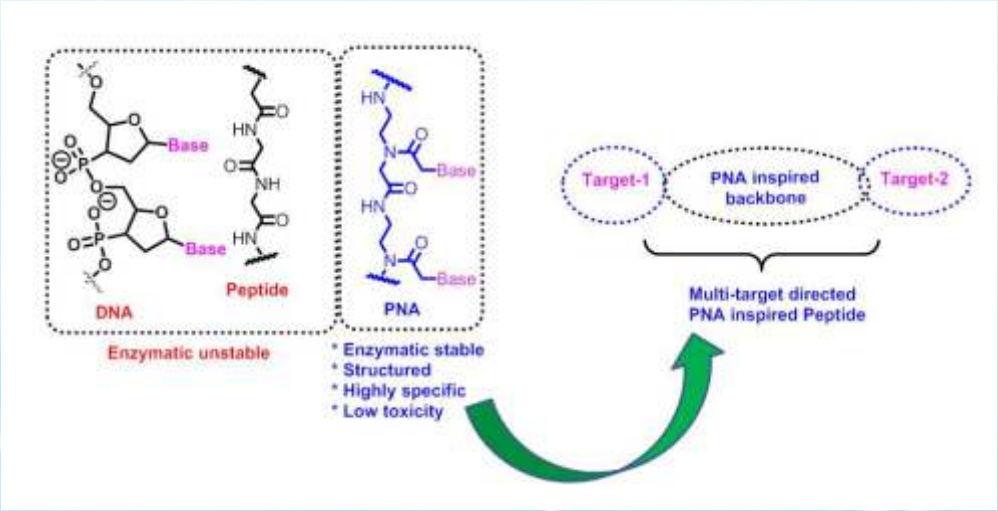
Mis-folded proteins (both intracellular as well as extracellular) is a hallmark feature in numerous human disorders including sickle cell anemia, neurodegenerative diseases such as Alzheimer's disease (AD), Parkinson's disease (PD) and metabolic diseases such as type II diabetes. Alzheimer's disease is one among the most prevalent form of neurodegeneration that is associated with severe cognitive impairment and memory loss primarily among geriatric population.

- Virtual Design of Thiazole based molecules
- Molecular docking & ADMET Studies
- Synthesis, *in-vitro* and SAR
- MD Simulation studies
- FACS Studies

Confirmation of the AD diagnosis is contingent upon, in the brain post mortem which identifies misfolded protein aggregates, including the neurofibrillary tangles composed of hyperphosphorylated tau protein and senile plaques composed of Aβ peptides. Aβ1-42 is the primary constituent of the senile plaques. The two additional hydrophobic residues at the C-terminus enhance its tendency to aggregate and highly conditional. Large number of small molecule are being explores which may reduce the Aβ aggregation via (1) metal chelation (2) alpha-helix/native conformation stabilization(3) beta sheet destabilization. However, these molecules often encountered with non-specific albumin binding and binding to undesired targets, therefore exert side effect and toxicity. On the contrary, peptide based therapy is an attractive alternate. Since peptides are naturally occurring biologics, this class of therapeutics has greater efficacy, selectivity and specificity when empowered with appropriate formulation and delivery strategy. Various peptides are being explored to prevent Aβ aggregation and they are proven to be very efficient in-vitro. However, their development is limited by the fact that they possess very short half life and metabolic unstable. Strategies such as D-amino acid variant, fluorinated amino acids, etc. are employed to improve metabolic stability.

Peptide nucleic acids (PNA) are important class of synthetic oligonucleotides which mimic DNA/RNA functionality with superior plasma stability and excellent sequence selectivity with little or no cytotoxicity. However, this peptidic backbone has not been explored yet to investigate Aβ aggregation. Although multi target directed small molecules been extensively studied, multi-target directed peptides/peptidomimetics for Alzheimer's diseases (AD) to our knowledge is rare. Our objective is to develop multi target based peptides/peptidomimetics inspired by the PNA-backbone. We are proposing that these peptides/peptidomimetics can disrupt the Aβ aggregation with improved neuroprotective acitivity and improved photolytic stability. Proposed classes of therapeutics are expected to exert minimal toxicity.

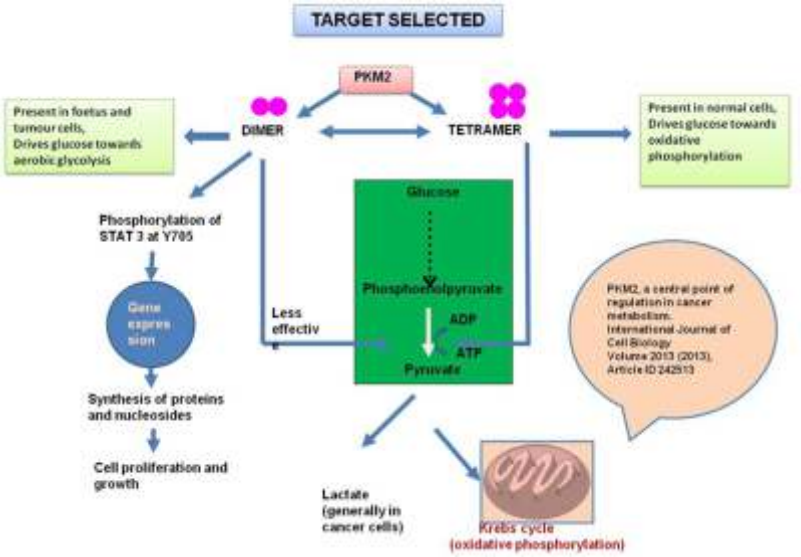
Schematic outline:



Reversible anticancer covalent inhibitors

Proliferating cells, especially tumour cells, express a special isoenzyme of pyruvate kinase, termed M2-PK, which can occur in a tetrameric form with a high affinity to its substrate, phosphoenolpyruvate (PEP), and in a dimeric form with a low PEP affinity. In tumour cells, the dimeric form is usually predominant and is therefore termed Tumour M2-PK. Tumor M2-PK can be elevated in many tumor types (Colorectal, breast, ovarian), rather than being an organ-specific tumor marker.

Previous attempts to target this enzyme using various agents like bissulfonamides, piperazine derivatives as inhibitors are yet to ascend into clinic. Serine, ML-265 have been established as activators of M2PK which can drag the protein towards the normal tetrameric state for thwarting the progression of cancer, but clinical success is awaited. In this category, although boronic acid derivatives have esteemed biological profile but they have never been explored as activators of M2PK towards anticancer activity. Here we intend to focus on the design and synthesis of boronic acid-based molecules with high affinity towards M2PK enzyme and dragging them towards tetramer formation. We presume that the boronic acid moiety established for superior biological profile will be engaged in dyanamic covalent bond formation leading to activation of M2PK thwarting cancerous cells towards death. This will smartly orchestrate the normal glycolytic pathway and will certainly bypass functional consequences associated with kinase inhibitors like leukopenia, hepatic disorders, hypertension, thrombocytopenia and several others. The rationally designed molecules will incorporate the fragments from well marketed drugs using fragment-based drug discovery approach that will eventually avoid all the aforementioned side effects and will have adequate draggability.

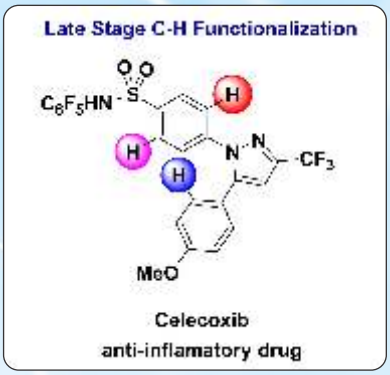


In the case of neurodegenerative diseases, Alzheimer's disease involves multiple enzymes like GSK-3 Beta, Monoamine oxidase (MAO) and acetylcholinesterase (Ache). In the current scenario, it's strongly emphasized that one molecule which can target multiple enzymes will be more effective rather than a cocktail of drugs. Here we are designing multi-target directed ligand (MTDL) to nail down the disease from across the corners. The molecule has shown potent inhibitory activity against acetylcholinesterase enzyme and currently being investigated against other enzymes for similar effects.

Construction of pharmaceutically important molecules through C–H bond activation

The direct transformation of C–H bonds provides shorter approach than classical organic synthesis, thus rendering straightforward and atom-economical synthetic routes. Even more appealing is that this new approach enables previously unachievable synthetic disconnections. The employment of C–H bond activation protocol in chemistry does not simply represent a gradual synthetic advance; it has implications beyond organic chemistry and through the compounds made using this methodology it reaches other fields of science such as materials science, biology, physics and energy research.

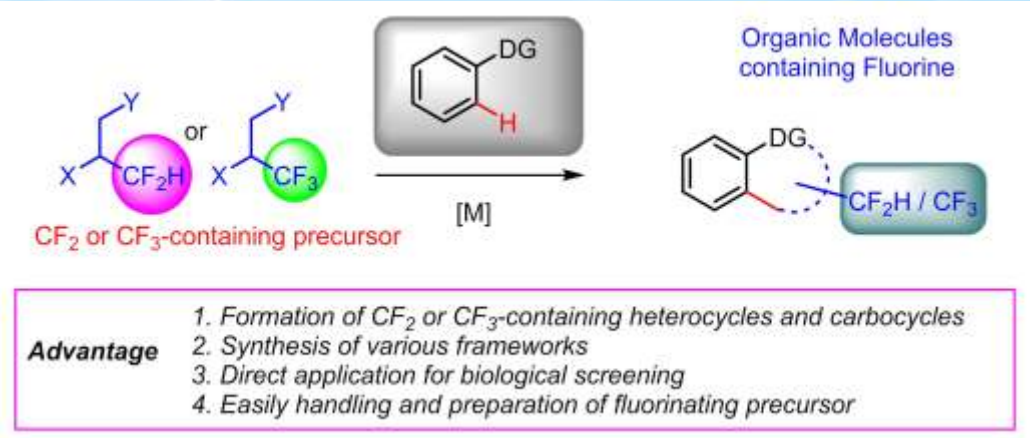
Owing to the existence of C–H bonds in all kinds of organic molecules, the ability to transform selectively, efficiently and in a predictable manner a specific C–H bond opens the door for the almost unlimited exploitation of this strategy for the late-stage modification of various complex molecules, enabling a rapid diversification of chemical entities into a panel of closely related analogues. Given the importance of difluoro- and trifluoromethyl groups in bioactive compounds and the fact that a large majority of modern medicines and agrochemicals contain one or more heterocyclic rings, it is not surprising that the synthesis of fluorine containing scaffolds is a topic of current interest to the chemical community. We focuse on the designing, synthesis and functionalization of novel heterocyclic scaffolds by using C-H activation strategy.



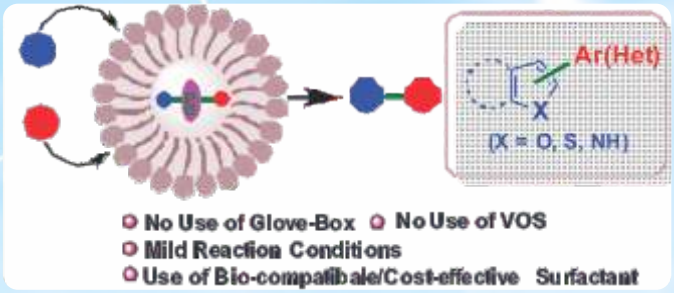
Sustainable functionalization of heterocycles using water as reaction medium

The development of green approaches (sustainable development) is an ongoing demand and a subject of current interest due to the adverse effect of the manufacturing processes of pharmaceuticals and fine chemicals on the environment. The major drive towards this initiative is the replacement of volatile organic solvents (VOSs) by green reaction media, as VOSs are the major contributors to environmental pollution due to their abundant use (more than 85% of the total mass utilization of a chemical process) and incomplete recovery efficiency (50–80%). In this context, water is the most preferred solvent and the use of water as a non-classical medium for organic reactions has received increasing popularity with several advantages such as (i) non-toxic, non-inflammable, and cheap; (ii) it eliminates the additional efforts required to make the substrates/reagents dry before use and thus reduces/eliminates the consumption of drying agents, energy and time; (iii) the unique physical and chemical properties of water often increase the reactivity or selectivity unattainable in organic solvents; and (iv) the product may be easily isolated by filtration in many cases. However, the poor solubility of most organic compounds in water often makes an adverse impact on water mediated organic synthesis and this has brought to light the use of surfactants in aqueous organic reactions.

Transition metal catalyzed direct functionalization is a popular strategy for diversification of small carbo/heterocycles for the generation and optimization of hit and lead molecules in pharmaceuticals and materials science applications. However, such reactions are often limited in water; require specially designed surfactants which limit their practical utility.



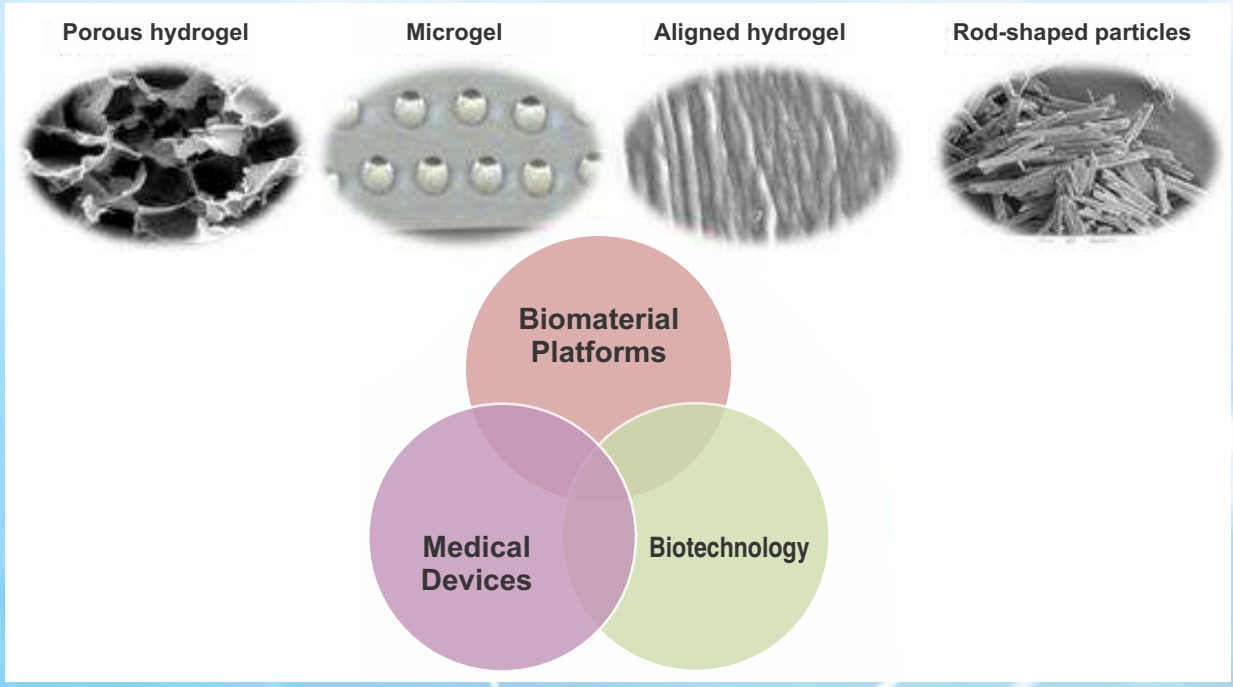
In this context, we are working on the micelle-enabled direct functionalization employing biocompatible, non-toxic, cost-effective surfactant under mild and globe-box free. Although the use of surfactants in aqueous organic reactions is popularly correlated with the beneficial effect of the surfactants as solubility aids, we described the specific role of the surfactants enabling the site-selective functionalization of heterocycles.



Medical Devices

Biomaterial applications in developing medical devices and biotechnology products

New concepts in material fabrication methods have been utilized in developing advanced forms of hydrogel and particles for specific medical and biotechnological applications. The research work is focusing on designing new types of materials using physical concepts and chemical engineering tools. We develop materials as chromatography matrix for the separation of a large particle such as mammalian cells, as a three-dimensional matrix for mammalian cell bioreactor and as particles in various forms for the delivery of biomolecules. The advanced forms of materials have been fabricated with enhanced biological properties for developing medical devices e.g. lab-on-a-chip, tissue repair patch and cell delivery vehicles. The appropriate type of biomaterial can be fabricated based on the desired application. We develop materials from natural (collagen, hyaluronic acid, alginate and other GAGs) and synthetic (poly (N-isopropyl acrylamide), poly(acrylamide), polycaprolactone, etc.) polymers.



Lab-on-a-chip: Bioengineered three-dimensional inflammatory disease model of degenerated tissues

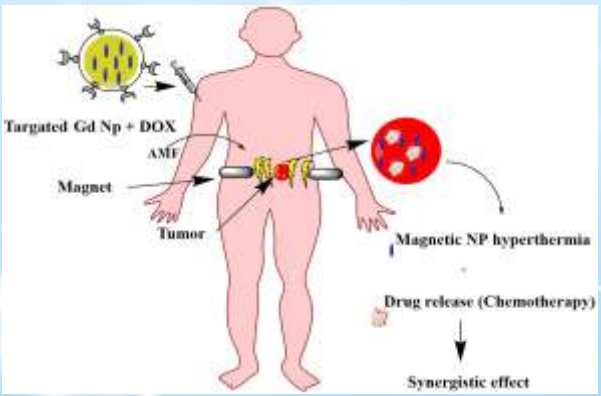
A biomaterial based in vitro three-dimensional hydrogel model will enable us to study inflammatory crosstalk in diseased conditions e.g. IVD degeneration, diabetes, cartilage, etc. The model will be based on controlling cell shape, mimicking extracellular matrix, encapsulating key inflammatory molecules and maintaining physical properties. The developed model (Srivastava et al., 2017, Biomaterials) will allow the study of paracrine crosstalk between cells and molecular changes at a genetic level under inflammatory condition. The model also enables the investigation of modulation in the glycans expression to understand the inflammatory microenvironment. We are further evaluating the impact of the mechanical stimulus on developed model to identify altered molecular pathways and cellular functions.

Smart 3D scaffolds for tissue regeneration and repair by nanotechnology intervention

Piezoelectric materials are smart materials owing to transduce the applied mechanical pressure into electrical signals and vice-versa. The cartilage regeneration and repair is a major challenge till date due to its complex structure. The major intention of the study is the utilization of piezoelectric mechanism to stimulate the cartilage regeneration without addition of stimulating factors. The piezoelectric polymeric scaffold is prepared by electro spinning method. The scaffolds are exposed to corona poling to develop surface charge density by strong electric field. The poled scaffolds are subjected physical, chemical and biological evaluations to optimize the scaffold for cartilage regeneration and repair.

Advanced strategies for cancer theranostics

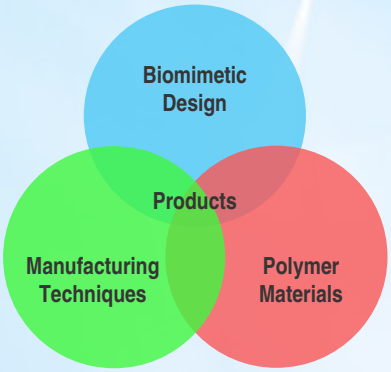
Cancer is an abnormal growth of cells in any tissue or organ of the body and these cells have ability to spread and grow in other parts of the body. Various conventional approaches are available to treat the cancer but they possess lack of absolute success and presence of various side effects. Studies carried out to achieve absolute cure by combination of alternative engineering therapies. The MRI contrasting agent gadolinium is doped with ferrite nanopartticles along with cobalt. The magnetic nanoparticles are loaded with chemotherapeutic drug and targeted to tumor cells with suitable ligand molecule to minimize the adverse effects. The drug loaded nanoparticles along with contrast agents helps to image tumor sites during therapy. The hyperthermia effect is generated by applying alternate magnetic field at tumor site by thermally induced apoptosis. Hence, the proposed strategy may give optimum results to destroy the cancer cell by synergistic effect of targeted chemotherapy and hyperthermia.

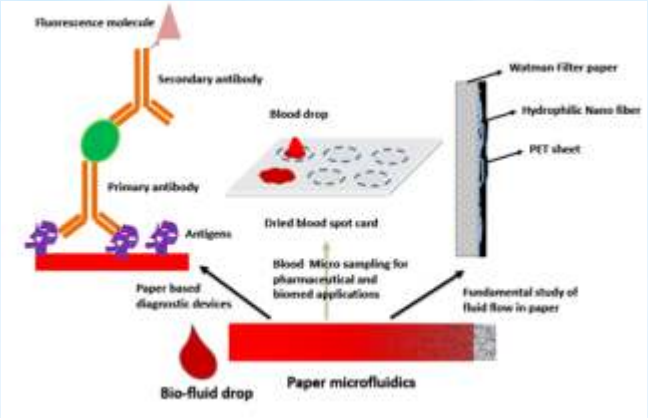


Departmental Research Activities

Paper microfluidics for diagnostic applications

The quest for affordable diagnostics has been major thrust in the bioengineering and clinical domain. The advent of domain of microfluidics have shown a great promise in developing highly sensitive, accurate and minimally invasive diagnostic solutions. However, the major road block is the design and manufacturing of these microfluidics based biosensors in an affordable manner. Therefore, we propose a paper microfluidics based diagnostic solutions that are affordable, accurate and highly sensitive. We work on the fundamental and applied aspect of driving bio-fluid through a porous materials, immobilization of bio-elements through surface modifications and detecting the required analytes





Micro/nanodevices for life-sciences and biomedical applications

Developing a tissue models have been seen as an alternative to animal trials for drug/medical device development. These tissue models can also serve as an alternative to understand the biology of a given tissue. The complex tissue architecture development is limited by scaffolding techniques that can facilitate better tissue engineering. We propose the combination of different micro/nanofabrication technology to design and develop biomimetic, multi-scale, multi-material, 3D tissue specific scaffolds/ devices/structures that can accelerate the developments in tissue engineering and fundamental understanding of tissue biology. Further, we propose to expedite these devices for applications like separation devices; extra-corporeal membrane oxygenators and kidney dialyzers, drug delivery devices; microfluidics device for wound healing, cold storage device; micro-cooling device and others

Natural Product

LC-MS based dereplication strategy for isolation of novel bioactive natural products from plant sources

Natural products play a very important role in the discovery of new drugs. Dereplication technique has reinvigorated the natural product based drug discovery process by improvising the time required for isolation of novel molecules. LC-HRMS based dereplication method has been established at NIPER-A to identify known compounds from medicinal plants. Punica granatum plant extract was selected for a case study of LC-MS based dereplication and identified 4-Hydroxy-2-H-pyran carboxaldehyde, ellagic acid rhamnoside, gallocatechin and coumaric acid hexoside successfully. Various projects are undergoing to identify novel bioactive compounds from natural sources.

Fingerprinting herbal extracts by LC-UV-MS for chemical marker identification

Diabetes is a major disease ruining lives of people worldwide and the menace is expected to increase even more because of the current life style issues. World Health Organizations global report on diabetes indicates that nearly 422 million adults are suffering with diabetes and this figure is expected to rise to 642 million people worldwide by 2040. Recent WHO reports have given emphasis on herbal preparations for treatment of diabetes. The herbal products typically contain aqueous plant extracts, polar and water soluble components from the plants, most likely responsible for bioactivity. However, common chromatographic methods include analysis of plant extracts using reversed phase C18 column. These columns usually do not retain polar compounds and hence elution occurs at void volume. Natural Products research team at NIPER-A is making efforts to retain and resolve polar components of herbal extracts by applying advance chromatographic methods, which is crucial in the analysis of herbal formulations. As a case study, aqueous extract of Momordica charantia (MCAQ) plant was used that showed most of the peaks eluted at void volume when analyzed by reversed phased HPLC using C18 column. The developed analytical method could successfully retain and separate polar components from MCAQ extract.

Bio-prospecting of endolichenic fungi to discover novel bioactive scaffolds

Natural Products based drug discovery has given so many novel scaffolds and almost 40% of approved drug has its origin from nature. Recently, several reports have been published on chemical diversity of endolichenic fungi, however they have not extensively studied from all geographical locations. Mangrove associated endolichenic fungi is a relatively new niche in the natural products realm, but shown tremendous potential of delivering important bioactive compounds. Study of chemical diversity of endolichenic fungi associated with mangroves present in Gulf of Kutch, Khambhat (Gujarat, India) and Gulf of Negombo (Sri Lanka) is the prime objective of this project. LC-MS based dereplication methodology will be applied for early identification of known metabolites. Isolation and characterization work will be focused only on shortlisted extracts with higher probability of finding novel molecules. The compounds will be screened for anti-cancer and anti-diabetic activity. This is a collaborative project between University of Kelaniya, Sri Lanka and NIPER-A, India.

Identification of a Natural Products possessing GLP-1R agonist activity from the plants recognized to have anti-diabetic potential; in silico approach followed by the testing of shortlisted molecules by specific in vitro assay.

Diabetes mellitus is a chronic metabolic disorder responsible for morbidity in the western world and is gradually becoming prevalent in developing countries too. Available therapies which are currently in the market have some major issues like hypoglycaemia (Sulfonylurea), diarrhea (Biguanide). So, there is a need to develop novel targets. Extensive research brings out various new targets including Glucagon like Peptide-1 receptor (GLP-1R). GLP-1R agonist molecule increases insulin secretion, reduces gastric emptiness, increase glucose uptake and storage in skeletal muscle and liver. Natural products have an immense history for curing diseases and it contains different scaffolds/ring structures with bioactivities. This provides a great opportunity for the development of new lead or drug with potent GLP-1R agonist activity. Initially, 236 small molecules were selected for in silico study based on their preliminary in vitro anti diabetic activity in different cell line. Among

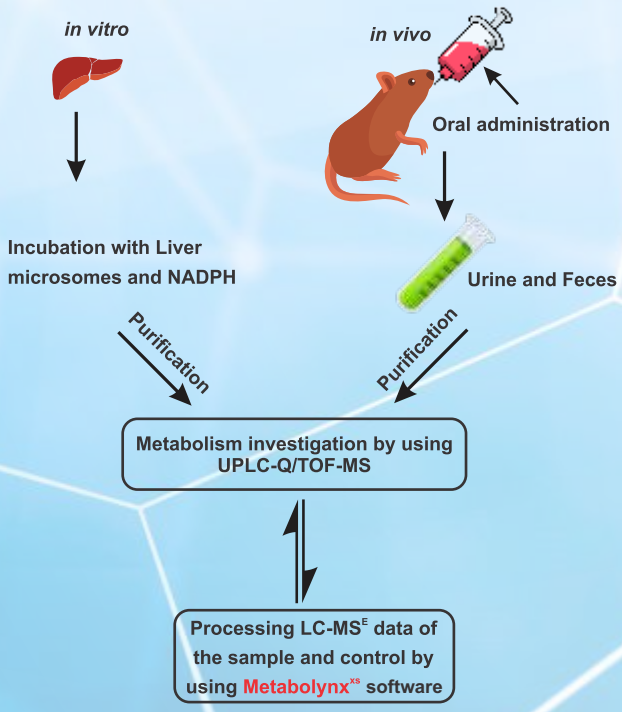
these 236 compounds 5 compounds have shown “hit” in different molecular docking software based on their binding affinity and interaction with different amino acid against GLP-1 model. These molecules will be isolated based on their availability and feasibility by targeted isolation procedures. The structure will be confirmed by spectroscopic methods and subsequently in vitro GLP-1R agonist assay will be performed for the establishment of mechanism of action.

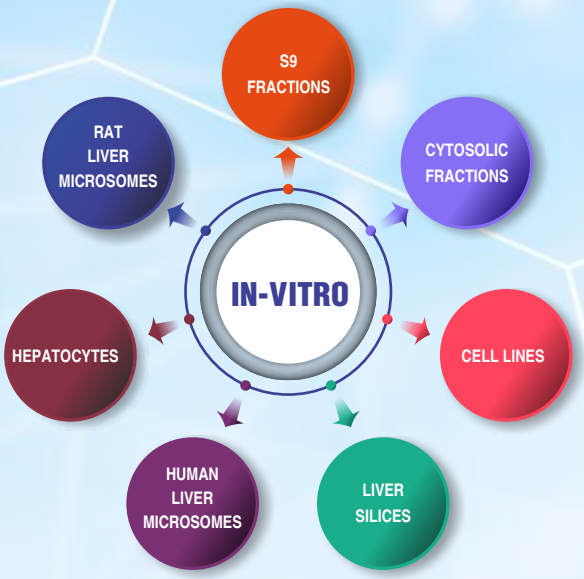
Pharmaceutical Analysis

Metabolite profiling of drugs using HPLC and LC-MS/MS

We perform the identification and quantification of metabolites to understand the routes of elimination, predict drug-drug interactions and safety profile of the drugs in biological system. Drugs are considered as xenobiotics which are metabolized in the body and converted to more polar compounds and eliminated easily. Metabolism takes place by Phase-I and Phase-II reactions. The primary enzymes involved in the Phase-I reactions are different forms of Cytochrome P450. In Phase-I metabolism, hydroxylation, epoxidation, O-, N-, S-dealkylation, oxidative deamination, N-, S-, P- oxidation, reduction and hydrolysis reactions are involved. In the Phase-II metabolism reactions, glycoside conjugation, glucuronidation, sulfate conjugation, O-, S-, N-methylation, amino acid conjugation, acylation, and glutathione conjugation takes place.

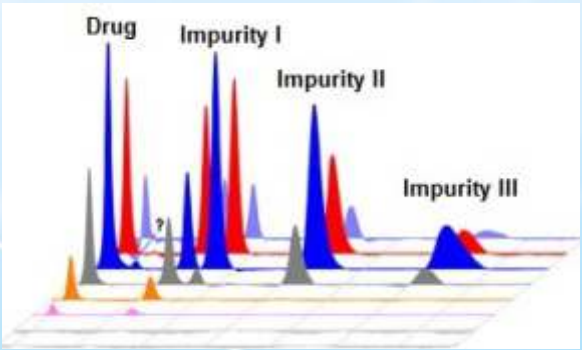
Detection, quantification and profiling of metabolites in biological samples (typically plasma, urine, faeces, and tissue) provides us with the opportunity to investigate the route and path of drug metabolism and their subsequent excretion. Human liver microsomes and rat liver microsomes are commonly used for in vitro drug metabolism studies. Microsomes are used for Phase-I metabolism studies. Cytosol is used for Phase-II enzymatic reactions. S9 fractions contain both Phase-I and Phase-II enzymes and used to study both of the metabolic reactions.





Impurity profiling of drugs using HPLC and LC-MS-MS

Our research area on forced degradation studies involved exposure of the drug to the acidic, basic, neutral, oxidative, photo and thermal stress conditions to generate all the possible degradation products. The stress samples are employed to develop and validate stability indicating analytical methods using HPLC and LC-MS-MS. Degradants are isolated by preparative HPLC and characterized by NMR, IR and mass spectroscopy. Kinetic investigations are performed taking the samples at different intervals during stress, and analyzing by HPLC or LCMS. Amount of drug remained after each time point is calculated to determine the order, rate constant and shelf life of the drug under each condition. The entire study results are utilized to establish the possible degradation pathway of the drugs.

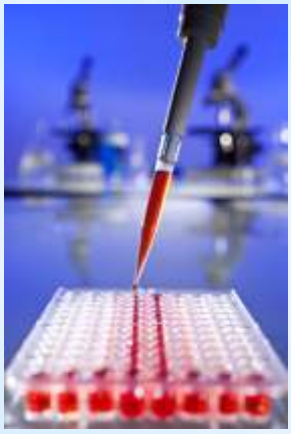


Drug-excipient compatibility studies

Compatibility between drugs and various excipients is determined by isothermal stress testing. The HPLC method is developed and applied to the analysis of stressed samples. The drug content and percentage drug remain are quantitated. The degradants are characterized by LC-MS-MS, NMR and IR spectroscopy. These studies are used for selection of suitable excipients in the formulations.

Bioanalysis, drug metabolism and pharmacokinetics

We develop and validate bioanalytical methods to quantify the drugs and their metabolites in various biological matrices namely blood, plasma, serum, urine and cerebrospinal fluid. Quantitative measurement of active drugs and their metabolites in biological samples are carried out for the purpose of pharmacokinetics, toxicokinetics, bioavailability and bioequivalence studies, exposure-response (PK/PD) studies, biomarker evaluation (proteins and peptides), forensic investigations and anti-doping drug testing. Bioanalysis plays a vital role during the lead optimization stages and for the progress in drug discovery and development. The major goal is to assess their over-all ADME characteristics. HPLC/ LC-MS-MS methods of analysis for NCEs and generic drugs in biological fluids, validation of method of analysis in different matrices, preclinical in vivo pharmacokinetic study of NCEs in animal species, plasma protein-binding studies, drug-drug interaction studies, tissue distribution studies, toxicokinetic studies, in vitro metabolism studies are the major area of our research in this field.



Pharmacology and Toxicology

Mitochondrial protection in ischemic stroke using intra-arterial mesenchymal stem cell treatment

In last decade, laboratory studies suggest stem cell therapy as a prospective treatment for stroke. Studies demonstrate that the post-ischemic delivery of mesenchymal stem cells (MSCs) significantly reduces ischemic brain damage in animal models of ischemic stroke. Furthermore, MSCs are delivered either by direct transplantation, intravenous or intra-arterial/carotid route. The intra-arterial (IA) administration of MSCs is promising for ischemic stroke treatment because it delivers cells directly to the site of injury as unlike systemic delivery of MSCs following traditional intravenous approach. Additionally, IA MSC therapy is minimally invasive than direct transplantation. Post-ischemic mitochondrial dysfunction plays an important role in cerebral ischemic damage. This dysfunction involves a drastic change in the activity of mitochondrial respiratory chain complexes, increased production of reactive oxygen species (ROS), mitochondrial swelling, the release of mitochondrial pro-apoptotic molecules, and related cellular damage. We aim to elucidate the mechanism by which mitochondria can be salvaged and protected following an ischemic episode by IA MSCs delivery. Protecting post-ischemic mitochondrial function by cell therapy can be an important strategy for post-ischemic neuroprotection.

Stem Cell Therapy to Counteract Endoplasmic Reticulum Stress in Ischemic stroke

Endoplasmic reticulum (ER) stress is an intricate mechanism that mediates several responses during stroke, thus being essential in determining the fate of neurons. The role of ER stress is highly important. In addition to

resulting in neuronal cell death through calcium toxicity and apoptotic pathways, ER stress also triggers a series of adaptive responses including unfolded protein response (UPR), autophagy, the expression of pro-survival proteins and the enhancement of ER self-repair ability, minimizing the ischemic damage. Mesenchymal stem cells (MSCs) can be used as a therapeutic armor for stroke. Many studies have shown that transplanted MSCs could secrete cytokines and growth factors, which could enhance the process of angiogenesis and neurogenesis, and subsequently improve the neurological functions. Our aim is to understand the mechanism by which IA MSCs can protect neural tissue against ER stress.

Exploring neuroprotective effect of Phyllanthus emblica in animal model of ischemic stroke

Neuroprotection remains one of the holy grails of acute ischemic stroke therapy. The ability to protect the ischemic brain from reperfusion injury could theoretically improve disability among stroke survivors. There are several neuroprotective agents available for the treatment of ischemic stroke, including several natural products. Phyllanthus emblica (P. emblica or Amla) is one of them whose medicinal properties are upfront and of paramount medicinal importance. P. emblica fruit is reported to contain polyphenolic compounds and vitamins that act as antioxidant and may have role in making the body defense system robust by elevating the trophic factors (BDNF, VEGF, SDF-1) level in brain. We aim to dive further into understanding the neuroprotective effects of P. emblica in rodent model of ischemic stroke.

Exploring DAP-kinase pathway in Ischemic stroke by Intra-Arterial Mesenchymal Stem Cells (MSCs) intervention

Cerebral ischemia up-regulates Death Associated Protein kinase (DAPk), increases apoptosis and autophagy which eventually leads to neuronal death. However, little is known about the mechanism how DAPk is involved in the neuronal death promoting process during cerebral ischemia. Therefore, exploring the molecular mechanism of DAPk signal transduction pathway involved in neuronal death is necessary. MSCs may regulate the levels of DAPk and may show a great potential for ischemic stroke therapy.

Targeting interplay of lectin–like ER chaperone with calcineurin by stem cells therapy in ischemic stroke

Researchers are targeting mitochondria and the endoplasmic reticulum (ER) to prevent post stroke event. Calreticulin (CRT), a lectin-like ER chaperone plays an important role in protein folding and Ca2+ homeostasis. However, its neuroprotective role in maintaining the neuronal ER integrity, safeguarding the neuron against ischemic reperfusion injury and Ca2+ mediated neuronal insult via interplay with Calcineurin (CaN) in ischemic stroke is less explored. We aim to understand how CRT plays a role in normal physiology of neuron and its impact on ER stress in ischemic stroke before the neuron succumbs to apoptosis. Here, we also aim to understand how mesenchymal stem cell (MSC) help in overcoming neuronal insult and safeguard the ER integrity to promote neuronal cell survival pre-clinically.

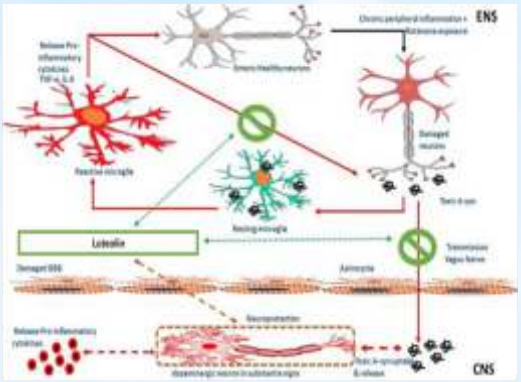
Intra Arterial delivery of mesenchymal stem cells to target "ER-UPR mediated neuronal cell death" in ischemic stroke

Cellular stress conditions like glucose deprivation, imbalances in calcium homeostasis and dysregulated ATP production in the cell trigger an ER adoptive machinery called the unfolded protein response (UPR). UPR is described by the activation of three ER transmembrane sensor proteins: pancreatic ER kinase (PKR)-like ER kinase (PERK), activating transcription factor 6 (ATF6), and inositol-requiring enzyme 1 (IRE1). Out of these, PERK pathway is well explored and associated with downstream activation of PERK-peIF2α-ATF4-CHOP signaling pathway which eventually leads to neuronal cell death in ischemic injury. We aim to study the influence of IA MSCs on this pathway.

Inhibition of Caspase 1 via Stem Cell Therapy to prevent Mitophagy and neuronal cell death in cerebral ischemia

Mitochondrial dysfunction is the foremost event involved during stroke, these events set a stage for ROS generation, which activates Caspase 1 and in turn Caspase 1 activation degrades parkin. Parkin is E3 ubiquitin ligase that is recruited to the mitochondrial outer membrane via PINK1 protein during mitochondrial damage, to undergo mitophagy. Following ischemic stroke, degradation of parkin results in prevention of mitophagy leading to increased ROS and neuronal cell death. Our aim is to study the influence of IA MSCs on the process of mitophagy.

Investigating the role of enteric neuronal inflammation in the pathogenesis of Parkinson's disease



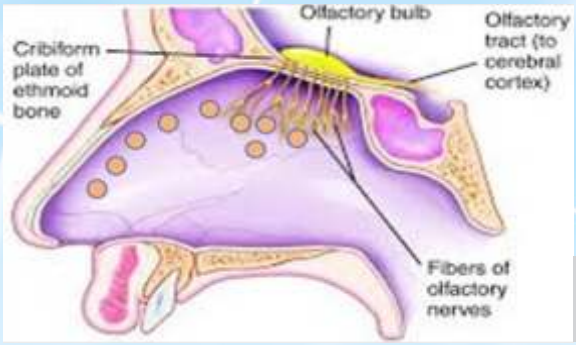
It is now well established that Parkinson's disease (PD) is not only a neurodegenerative disorder of CNS but also a gastrointestinal disorder affecting the enteric nervous system (ENS). Keeping this viewpoint in mind, we would like to examine the susceptibility of enteric neurons by providing chronic inflammation by dextran sodium sulphate (DSS) toward slowly progressive rotenone-induced PD mouse model. Chronic intestinal inflammation will be induce with 3 cycles of DSS and subsequently treated with low dose intragastric rotenone for next 4 months to observe the changes in animal behavior, pro-inflammatory cytokines, and tyrosine hydroxylase immunoreactivity and phosphorylated α-synuclein in dorsal motor nucleus of vagus and other brain regions in comparison with control. Taking natural moiety as a core molecule, we will try to assess the suppression of neuroinflammation and thereby slow the progression of PD.

Targeting alpha synuclein accumulation and transmission: Role of AMPK activator

Parkinson's disease (PD) is characterized by the accumulation of intracellular α-synuclein (α-syn) aggregates and degeneration of nigrostriatal dopaminergic neurons.There is no satisfactory treatment available, which can slow or halt the progression of the disease.Recently, AMPK, a serine-threonine kinase has been observed as important target to cure the disease, which works by increasing autophagy and thus, decreasing α-syn aggregation and secondly, by relieving oxidative stress and thus, reducing tunneling nanotubes (TnT) formation and subsequently, transfer of alpha synuclein gets hampered. Therefore, AMPK activators may be useful Anti-Parkinson drug in future. We are also working to develop a new Parkinson's like model by administrating intranasal rotenone nanoformulation, which will be restricted to nasal region and will develop the α-syn pathology from olfactory nerves to substantia nigra in a natural way. We willthen check the effect of AMPK activatorin this olfactory model as well as in in vitro model of PD using SHSY5Y cell lines.

Exploring the effect of boronic acid derivative on pyruvate kinase M2 in breast cancer

TAMs activate the dimeric PKM2 and ultimately activate the NLRP3 levels and this NLRP3 release the IL-1β and IL-18 cytokines, which go to bind the JAK receptors then it phosphorylated and activate the STAT-3 and again phosphorylated STAT-3, it goes to nucleus the transcription and translocation so there is gene expression of nuclear cells, that cells will be cell proliferation, cell progression and cell growth. Our compound boronic acid derivative it acts on PKM2 dimeric form of serine threonine residues, then dimeric form of PKM2 is converted to tetrameric form. So ultimately whole pathway is reversed, which may decrease cell proliferation and cell growth.



Mucoadhesive Nanoparticles

Exploring the effect of alpha mangostin on inter-neuronal transfer of toxic alpha synuclein through tunneling nanotubes

α-synaggregation and transfer are main pathological events in PD. The transfer could take place through several routes like tunneling Nanotubes (TNTs) and many more. Lately, TNTs have emerged as a novel and widespreadmechanism of cell to cell communication and transfer. The inter cellular transfer of α-synuclein could be due to the formation of TNTs between the dying and healthy cells due to ROS generation. So, we are studying the anti-oxidant effect of alpha mangostin on this mechanism of transfer.

Uncovering the autophagic potential of α-mangostin in clearance of toxic form of α-synuclein via modulation of AMPK pathway

α-synaggregation and transfer is central to the pathogenesis of PD. Therefore, enhancing α-synuclein elimination by autophagy induction may represent a viable therapeutic strategy for the treatment of PD. α-Mangostin is natural xanthone derivative has been reported to have neuroprotective property as it decreased α-synuclein expression in rotenone-induced model of PD, but mechanism remains unknown. Therefore, further we would like to explore molecular mechanisms by which α-mangostin decreased aggregation of α-synuclein.

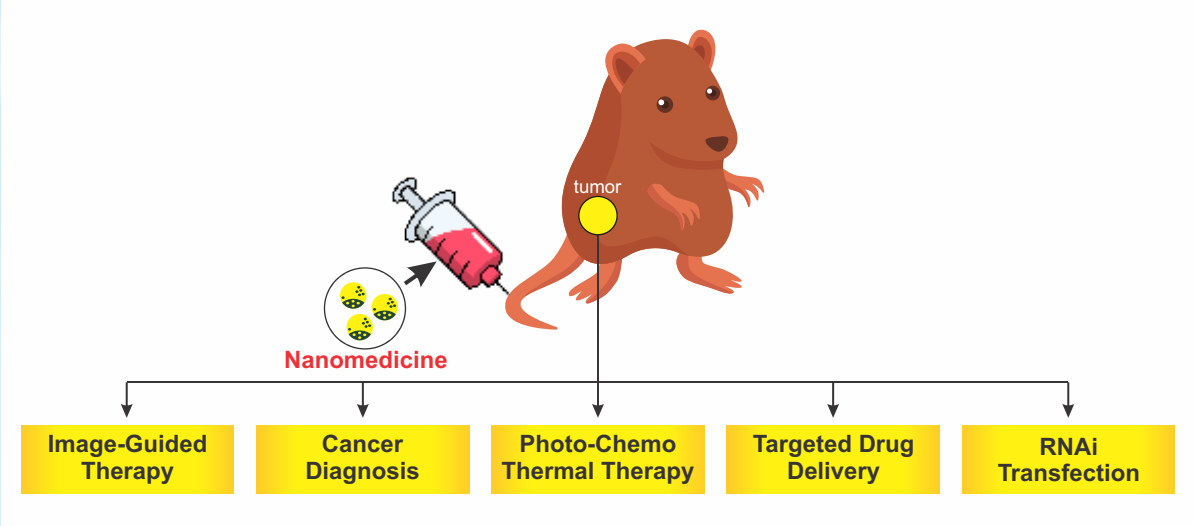
Exploring Neuroprotective role of Chlorogenic acid acting Through Glucagon Like Peptide-1 Release in Parkinson's Disease

Chlorogenic acid (CGA) is one of the main constituent of coffee after caffeine which was shown to play a neuroprotective role in stroke. CGA was reported to increase postprandial release of GLP-1 in intestine and inhibited development of type II diabetes. Recently type II diabetes drug Exenatide which is a GLP-1 receptor agonist, found to be neuroprotective in PD. So, we hypothesize that CGA by increasing the level of GLP-1 in brain may act as neuroprotective in PD by promoting PI3K/Akt and MAPK pathway.

To evaluate α-mangostin activity againstPKM2 via STAT-3/hnRNPA1/PKM2 loop in breast cancer cells

Aerobic glycolysis has been proven to be upregulated in breast tumor cells and consequently, deregulation of this process has been recognized as a strategy to target the tumor metabolism. Pyruvate kinase M2 (PKM2), an enzyme involved in the rate-limiting step of glycolysis was found to be over-expressed in the breast cancer cells and enhances the aerobic glycolysis or Warburg effect indirectly supporting the tumor cells for their progression and metastasis. α-mangostin a dietary Xanthone found in mangosteen pericarp was found to inhibit glycolysis via various glycolytic enzymes and further found to have an anti-metastatic activity against several cancers. However, its effect on aerobic glycolysis and its inhibitory activity on PKM2 is not yet elucidated till date. So, the current investigation was aimed to elucidate the inhibitory activity of α-mangostin against PKM2 via STAT3/hnRNP-A1/PKM2 loop.

Pharmaceutics



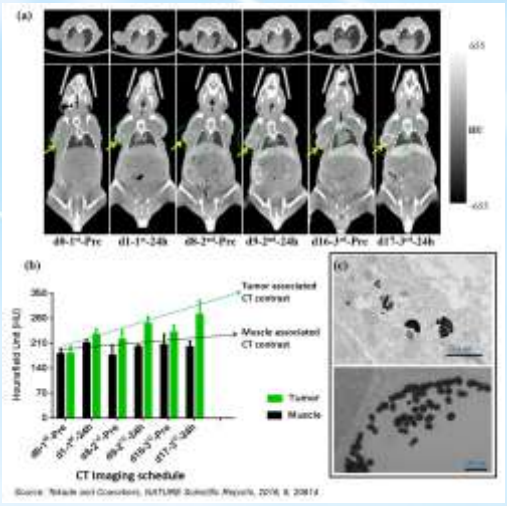
Development of novel polymeric nanomaterial for effective cytosolic delivery of anticancer bioactives

The focus of this research is towards the successful delivery of therapeutic agents in a controlled and targeted manner and the development of advanced delivery systems for a variety of applications. Projects ranging from fundamental science to industrially relevant applications are undertaken by Postdoc, Ph.D and postgraduate students within the cluster. The research interests include the use of biodegradable polymers for the micro and nanoparticle delivery of drugs and proteins particularly for cancer therapy. Specific examples of ongoing projects include the delivery of anti-cancer drugs and small interfering and microRNA. An overarching goal of his current research interests encompasses development of novel polymeric nanomaterial for effective cytosolic delivery of anticancer bioactives. The research is also focused towards designing a new generation of nanoparticles, which could identify the cancer cells and selectively deliver anticancer drugs and genes to inhibit the growth of cancer while sparing healthy tissues. His research work involves the applications of polymer chemistry, nanotechnology, molecular biology, pharmacokinetics/pharmacodynamics and imaging techniques. Tekade lab is also involved in investigating the anticancer activity and molecular mechanism of several nanoformulations against cancer cell lines.

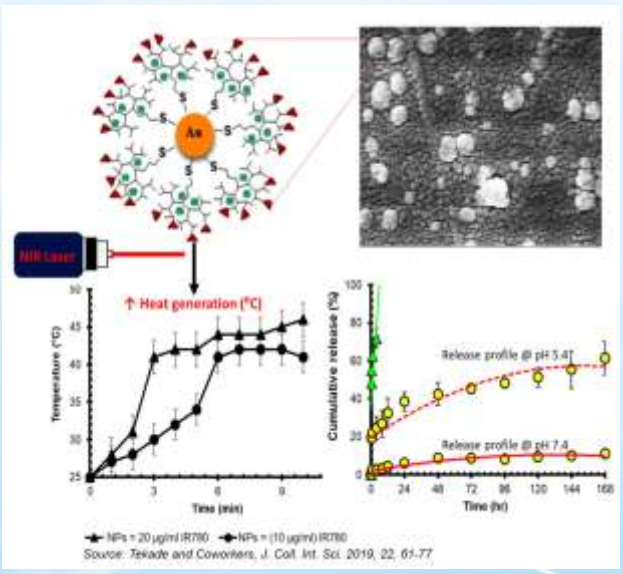
Formulation Development of Injectable RNA interfering nanoparticle for targeted therapy of diabetic nephropathy

Diabetic nephropathy (DN) is chronic kidney disease with microvascular complications leads to renal dysfunction, podocytes effacement leads to proteinuria (albuminuria), glomerulosclerosis and tubulointestinal fibrosis. In this context, research is focused towards the formulation development of novel nanotherapy for the treatment of the DN bearing a cocktail of the gene therapeutic cargo and drug. For development of podocytes targeted Nanotheraputics, novel polymers are synthesized to form protonation active biopolymer. This novel biopolymeric was used to develop nanoparticles loaded with RNAi and drugs. These Nanoparticles were tagged with ligands for achieving site-specific delivery. Further formulation evaluation done for its physicochemical and biological properties. Cellular uptake studies would be performing via in-vitro podocytes cell line model and induced diabetes mouse model.

Tripartite approach for treatment of triple negative breast cancer (TNBC) using graphene oxide wrapped polymeric nanoparticles

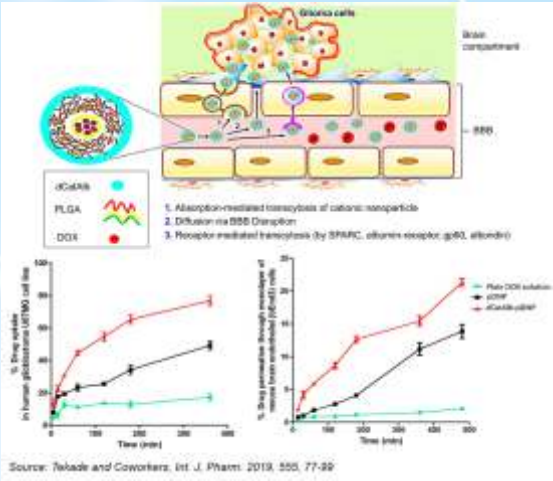


The research interest of this cluster is to develop innovative strategies to tackle barriers associated drug delivery. This research project involves development of novel formulations for the treatment of cancer using nanotechnology-based platform, which involves the development of polymeric nanoparticles (NPs) trenched with multiple approaches including hyperthermia and chemotherapy for effective and promising treatment of aggressive triple negative breast cancer (TNBC). One of the components is also to establish the effective correlation between the various approaches and their individual effects towards the treatment of TNBC. For this, we consider to develop the anti-breast cancer formulation with greater in vitro and in vivo outcomes to render it liable for clinical trials and to explore the research area based on the use of RNAi mediated gene silencing, as a novel and very effective approach to treat various forms of cancer. The proposed research methodology involves systemic and long-term solution for the TNBC by employing triple punch therapy includes the delivery of chemotherapeutic drug under influence of induced photothermal effect and gene silencing.



NIR laser activatable Nanoplates for the treatment of resistant tumours

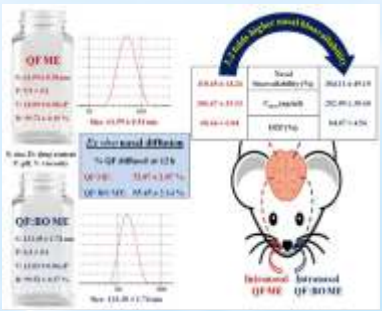
Despite of accelerating research and huge scientific affords to find out the clinically applicable solution for complete cure from cancer, it is still one of the deadliest diseases threatening the lives of humans across the world. The conventional drug chemotherapy is no longer an effective strategy and a combinatorial treatment approach is largely warranted. We, in the proposed research, aiming to combine treatment methods such as chemo therapy and photothermal therapy via in-house optimized and synthesized nanoshells as multifunctional nano-delivery system with inherent photothermal potential. As one of the thrust areas of research Dr. Tekade's lab in NIPER-Ahmedabad is trying to develop a combination of chemo with photothermal hyperthermia therapy by formulating Nanoplates by green route using anti-cancer agents for the dual effect that will eliminate and reduce side effects as well as the toxicity profile associated with the existing therapies with improved selective and potency. It is proposed that the pulsatile behavior will serve as a btter and effective option as well as an alternative to cure and prevent the regeneration of the tumor after removal from the surgery. The long-term goal is to develop nanoplate to serve as combined drug carrier, photothermal active system as well as theragnostic platform.



NIR laser activatable Nanoseeds for the prevention of post-surgical relapse of the resectable tumor

In the past few years several attempts have been made to detect as well as treat post-surgical relapse of cancer. But till date, no reliable therapeutic strategy has been deviced for the prevention of post-surgical relapse, while only chemotherapy, radiotherapy and surgical resection are the only treatments options in hand. We propose to formulate NIR-Laser activatable Gold-Nanoseeds for the prevention of post-surgical relapse of tumor which will provide photo-chemo therapy (PCT) including chemotherapy as well as photothermal therapy using the in-house optimized and developed nanoshell with high Laser driven photothermal potency. The long-term goal is to develop a simple and radiation free alternate for post-surgical interventions in breast and prostate cancer.

Butter oil to achieve targeting to brain and posterior segment of eye



Intranasal delivery has come to the forefront as an alternative to invasive delivery methods to bypass the Blood brain barrier and rapidly target therapeutics directly to the central nervous system utilizing pathways along olfactory and trigeminal nerves innervating the nasal passages. We are exploring the role of butter oil from bovine origin, reportedly known to be rich in omega 3 fatty acids, to achieve targeted brain delivery and its role in membrane remodelling and neurogenesis, especially in neurodegenrative disorders. Additionally, we are also investigating the potential of butter oil as permeation enhancer for delivery of formulation to ocular compartments. The outputs of the work could be path breaking in terms of projecting butter oil in altogether new light as active carrier, as till date it is only considered to be rich source of cholesterol in food.

Application of thermal methods in reverse engineering studies

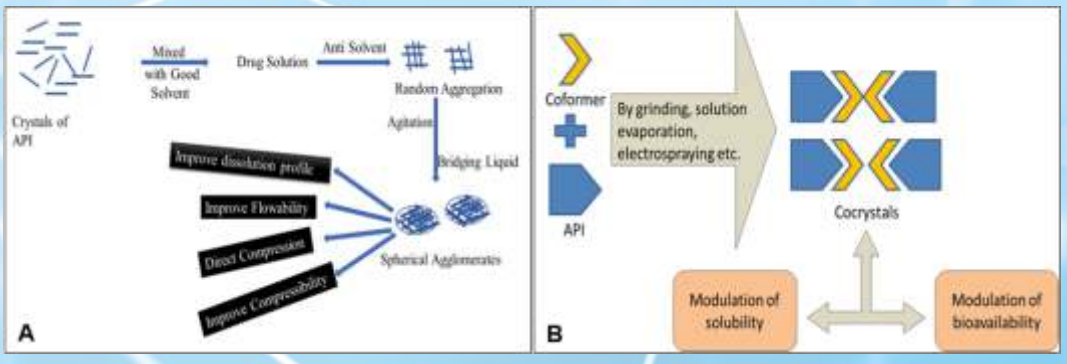
Assessing mixing uniformity of a powder blend in pharmaceutical formulation of a low dose potent drug is a very critical step, failing which the entire formulation needs to be reworked from the beginning. Similarly finding out the particle size of API used in the formulation by Innovator via reverse engineering is a critical step in generic formulation development. These are crucial factors which may affect the performance of generic formulation. Thermal analysis could be efficiently used to asses these parameter utilizing minimal sample and in very shorter time interval. In our lab we are exploring several such phenomenon using DSC and hot stage microscopy.

Electrospraying Vs Lyophilization: Impact of on Solid state properties of drug Nanosuspension

Poor aqueous solubility is the leading hurdle for formulation scientists working on oral delivery of drugs and has led to use of novel formulation technologies. Size reduction in nano range can enhance the dissolution rate of the poorly water-soluble drugs and increase oral bioavailability. Currently used methods like “top-down” or “bottom-up” approaches, decrease particle size but leads to enormous surface area and drastically amplified Gibbs free energy making it difficult to retain the nanosize of fresh precipitates due to physical (aggregation/particle fusion) and/or chemical instability (chemical reactivity of drug during storage) upon storage. We are at present involved in studying the complex interplay between stabilizers and cryoprotectant used during lyophilisation of nanosuspension to obtain nanocrystal. We are also investigating solid state properties of nanocrystals obtained using lyophilization and those obtained using electrospinning to evaluate their impact on bulk level properties of nanocrystals. This will help in identifying markers of instability at earlier stages and reduce time required for stability assessment of dosage form.

Impact of Multi-component solid state complexation and particle design techniques on Modulating micromeritic properties of API

In current Pharmaceutical scenario, solubility has turned out to be major stumbling block in engineering and designing the final solid dosage form. Till now, various approaches are reportedly explored to overcome the solubility issue but many of them are facing practical difficulties at various level. In such scenario, exploring the multi-component solid state complex like cocrystal, Eutectic Mixture and particle design techniques like spherical agglomeration technique offers several advantages. Similarly particle design techniques, can help in customizing particulate level properties of API and thus produce powders with desirable bulk properties. BCS class II drugs which are inherently facing the issue of solubility and are subjected to various harsh condition like milling leading to compromise in their micromeritic properties like flowability, compressibility also are ideal candidates to explore. One of such technique is Spherical agglomeration which transforms the compact crystal into spherical agglomerates.



Institutional Facilities

Central Instrument Facility

National Institute of Pharmaceutical Education and Research (NIPER)- Ahmedabad provides the facilities of Research Laboratories with sophisticated instruments to fulfil the departmental needs based on the research programs of M.S. (Pharm.) and Ph.D. students. The Central Instrumentation Facilities are constantly upgraded as per the latest advancements in research, developments and technologies.

CIF Laboratory

Q-TOF-LCMS

FTIR

ATR

Gas Chromatography

HPLC-UV/RI

Gel Permeation Chromatography

Institutional Facilities

HPLC-PDA/FLD

Flash chromatography

Semipreparative HPLC

Porosity meter

Ultracentrifuge

Thermogravimetric Analyzer

Multimode Reader

UV Plate Reader

Differential Scanning Calorimeter

Polarimeter

UV-VIS Spectrophotometer

Microbalance

Institutional Facilities

Lyophalizers

FESEM_CRYO SIGMA 300

NMR

Chemical Biology Laboratory

Gel Doc System

Inverted Microscope

Co_2 Incubators

Nanodrop

Real-Time PCR

Bioanalyzer

Rotary Evaporator

Temperature Controlled Centrifuge

Parallel Synthesizer

Institutional Facilities

Deep Freezer (-80°C)

Rotary Shaker

Biosafety Cabinet (Class II)

Cryo Can

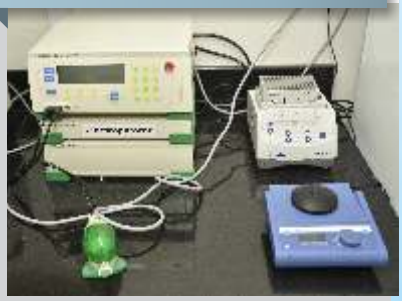
Western Blot Unit

Gel Electrophoresis Unit

Melting Point Apparatus

Fumehood

Electroporator



Confocal Microscope: Leica TCS SP8

Bio Rad S3eTM Cell Sorter

Hypoxia Chamber

Institutional Facilities

Regulatory Laboratory

Passive Avoidance Apparatus

Refrigerated Centrifuge

Rota Rod

Drug Discovery and Delivery Laboratory

Rapid Mixer Granulator

Autocoater

Potentiostat-Galvanostat

Stability Chamber

Mastersizer

Zetasizer

Institutional Facilities

Hot Stage Microscope

Rheometer

Magneto Meter

Fluid Bed Dryer

Texture Analyzer

Rotary Compression Machine

Disintegration Apparatus

Poling Setup

Universal Testing Machine

Electron Spinning Setup

Piezometer

Probe Sonicator

Institutional Facilities

Hot Plate Analgesiometer

IVC Cages

Metabolic Cages

Electronic Von-Frey

Hargreaves Apparatus

Surgical Microscope

Stroke Apparatus

Animal Ventilator

Sterotaxic Instrument

Cryostat

Small Animal Anesthetizer

Deep Freezer (-80° C)

Institutional Facilities

Hot-cold Plate Analgesiometer

Activity wheels

Respirometer

Operant conditioning chamber

Semi-automatic bioanalyser

Small animal in vivo-imaging system

Micro-dialysis

Probe sonicator 2

Isoflurane anesthesia system

FDM 3D printer

NIR-LASER Diode

Photostability chamber

Institutional Facilities

ANIMAL HOUSE FACILITY

Institutional Facilities

Computer Lab

NIPER-Ahmedabad has central computer facility for the students and staff to avail a high-speed Internet facility. A dedicated Internet leased line with 10 Mbps accessing speed has been installed to provide uninterrupted Internet service to all students, faculty, and staff. The adequatesecurity mechanism is implemented to protect and monitor against virus, worms, phishing and hacking incidents. All the computers are connected through Local Area Network (LAN) using 1 GB Dlink managed the switch. HP Prolient Server is installed to work as an application server to host applications like Koha Library Management Software, ERPnext,TallyERP, etc. These applications can be easily accessed by students, faculty, and staff via LAN. The Computer Centre is also equipped with various open source operating systems like Linux Centos 7, Ubuntu, etc. along with licensed Operating Systems like Microsoft Windows 8 AND Windows 10. Software including SPSS, Schrodinger (QSAR and Molecular Modelling), Microsoft Office 2013,etc is available for use. All faculty rooms, seminar rooms, class rooms, library, and laboratories equiped with Wi-Fi facility. Apart from this, all class rooms, seminar rooms, and the auditorium is equipped with Projector, TV, video conference facility etc. for the conducive learning environment.

Library

NIPER-Ahmedabad library comprises more than Fourteen hundred books and around 42 Print journals (National & international) and 153 E-Journals from Publishers like Science direct, ACS, Nature, Springer, Taylor & Francis. encompassing all disciplines of pharmaceutical sciences and technology viz. analytical chemistry, medicinal chemistry, pharmacology, pharmaceutics, natural products, biotechnology and medical devices. It has ample collection of e-books, huge reading hall, photocopy facility, many Ph.D. & M.S. Pharm. thesis copies and NIPER workshop & conference Reports. The libraryis efficiently equipped with open source Library Management Software - KOHA. An Online Public Access Catalog (often abbreviated as OPAC or simply Library Catalog) is an online database of materials held by NIPER Ahmedabad library. It is a computerized library catalog available to the NIPER-A use. OPAC is accessible over the Local Area Network to the users. Users search a library catalogue principally to locate books and other material physically located at a library. Apart from KOHA we also have digital Library Software (Greenstone Digital Library (GSDL) for Creating in house Institutional repository (Research Publication from NIPER-A, Dissertation theses of pass out Student) to allow the online Access to the Student from NIPER-A.

Institutional Facilities

Our library is also having Turnitin software to check submitted documents against its database and the content of other websites with the aim of identifying plagiarism. Library resources and facilities being updated from time to time as per the requirements of the students as well as faculty recommendations. The library has elaborated arrangements for conservation and preservation of books, journals, and thesis for posterity. The library is also well equipped with a good collection of motivational books by Robin Sharma, textbooks from renowned authors including classic literature from the likes of Munshi Premchand, etc.Further, to generate curiosity and to inculcate reading habit in students, it is planned to equip Library with much more fiction, scientific novels, biographies, autobiographies, story books also. SciFinder (Chemical Abstracts Service, American Chemical Society, USA) is the latest addition to the cutting edge research support facility of NIPER-Ahmedabad. Notably, SciFinder is a convenient and reliable source for literature review, patents, invention to aid cutting edge novel research. It has now became a core research tool for chemistry, biochemistry, chemical engineering, materials science, nanotechnology, and other science and engineering disciplines. The SciFinder is easy-to-use and enables the research process to be more creative and productive.

Hostel

The Institute has separate hostel for boys and girls, which are in the nearby locality. The transport facility is provided for the students residing in hostel. The hostel rooms are spacious and well-furnished. Each student is provided with basic furniture including bed, chair, study table and cupboard at the beginning of the academic year. The hostels have sports and other recreational facilities, such as gym, common area for interaction, playing and festival celebration, etc. All the hostel rooms have internet connectivity round the clock. The hostelis are under 24 x 7 CCTV surveillance. Apart from this day and night security persons are engaged. Hostel mess serves nutritious food throughout the year. Hygiene and cleanliness within the hostel premises are well taken care of by providing round the clock housekeeping services and breakdown maintenance services.

Institutional Facilities

Canteen

Canteen is located on the Institute campus, which provides a variety of hygienic and healthy food, snacks and beverages, etc. Keeping in view the requirements of research students, the canteen remains open until extended hours as well as during weekends. We at NIPER-Ahmedabad believe that research ideas are germinated at places like canteen where students can openly interact and discuss their prepositions. Canteen has a large well-covered shaded sitting area, where the students carry out the off-classroom brainstorming sessionson their innovative ideas. It is also a place for students to celebrate fun filled events like laboratory parties, birthday celebrations, marriage anniversaries, awards and successes etc.

Sports Complex

The sports complex was established at NIPER-A in September 2017. The sports complex includes badminton courts, volleyball court, basketball court and lawn tennis court. The sports complex is equipped with flood lights to play in evening and night. Our students have used these facilities to sharpen their skills in these sports.

Recreation

Students of NIPER Ahmedabad participate in a variety of indoor games, outdoor games, and gym activities. Instead of confining a student to research and classroom studies, such recreational activities are largely encouraged by NIPER-Ahmedabad to promote an all-round personality development of a student.

Institutional Facilities

Gymnasium

"Healthy mind resides in a healthy body" is a much-clichéd saying. Students participating in sports are more likely to succeed in the classroom. A good physical education program plays an important role in the all-round development of students. It is an integral part of the total education of any student and is closely related to skill acquisition in other areas. NIPER-Ahmedabad was having an agreement with Ekalavya Sports Academy, Ahmedabad for using its facilities. After shifting to a new campus at Gandhinagar, a new Gymnasium facility is currently being installed for all the students at the hostel premises.

Visits of Dignitaries

Dr. Ketan R. Patel, Chairman & Managing Director at Troikaa Pharmaceuticals Ltd. (Chairman Board of Governors (BoG) NIPER - Ahmedabad) visited NIPER -Ahmedabad

On 15th March, 2019, Dr. Ketan Patel, Chairman & Managing Director at Troikaa Pharmaceuticals Ltd, Chairman Board of Governors (BoG) NIPER - Ahmedabad visited the campus and interacted with the Faculty members.

Smt. Darshana Mukesh Bhai Vaghela and Dr. Dharmendra Narendra Bhai Gajjar visited NIPER - Ahmedabad

On 25th March 2019, Smt. Darshana Mukesh bhai Vaghela and Dr. Dharmendra Narendra Bhai Gajjar members of Board of Governors (BoG) visited NIPER - A They visited various labs and interacted with the Faculty members and students.

Visits of Dignitaries

Dr. Gayatri Patil, (Director, Niper – Hajipur) and L.Sivaji, (Registrar, NIPER – Guwahati) visited NIPER –Ahmedabad

On 1st March, 2019 Dr. Gayatri Patil, Director of NIPER - Hajipur and L.Sivaji, Registrar of NIPER - Guwahati visited various labs of NIPER -A and interacted with the Faculty and students of NIPER –Ahmedabad.

Prof. Dileep R. Yavagal and Prof. Rohit Bhatia Visited NIPER –Ahmedabad

On 15th March, 2019, Prof. Dileep R.Yavagal, Director, Interventional Neurology, Professor of Neurology and Neurosurgery, Miller School of Medicine, USA and Prof. Rohit Bhatia, Neurology AIIMS, Delhi visited NIPER- A. They had an interactive session with the Director and Faculty members. They had the Facility visit along with the visit to stroke research and theraputics laboratory, Pharmacology &Toxicology to discuss the possibilities of joint research collaboration between MILLER School of Medicine, AIIMS and NIPER-A for the department of stroke research.

Visits of Dignitaries

Visit by Prof. Priyani A. Paranagama, December 20-25, 2018 Indo Sri Lanka Collaborative Project :- Director, Institute of Indigenous Medicine, University of Kelaniya, Sri Lanka

PROJECT TITLE

Bioprospecting Endolichenic Fungi from Mangroves in Negombo lagoon in Sri Lanka and Gulf of Khambat, Gulf of Kutch from Gujarat India: An Untapped Treasure Trove for Discovery of Special Structures and Bioactive Compounds

PURPOSE OF VISIT

Discussion of the milestones involved in Indo-Sri Lanka collaborative project.

VISIT SUMMARY

Prof. Paranagama arrived on 20th December 2018 to India in the morning. She then arrived at NIPER-A campus and had meeting with Prof. Kiran Kalia, Director NIPER-A. After the meeting, she visited all the departments (Department of Pharmaceutics, Department of Pharmaceutical Analysis, Department of Biotechnology, Department of Medicinal Chemistry, Department of Natural Products, Department of Pharmacology and Toxicology and Department of Medical Devices) along with the laboratories and had in general interaction with students. Next day, she also had one to one dialog with all of the members involved in the project.

Prof. Paranagama delivered a talk on “Fungi, an outstanding renewable resource of bioactive natural products” to all the students of NIPER-A. She was felicitated by Dr. Pallab Bhattacharya, Dean, NIPER-A. She then interacted with the entire faculty along with Director of NIPER-A. Next day was dedicated to Indo-Sri Lanka collaborative project discussion. In this session, all the associated members in the project and Prof. Priyani had a talk about the work done, in progress work and project timelines along with the future prospective of the project. Work to be distributed amongst the collaborators was also decided during this session. There was a session for photographs at the end of the visit.

POINTS OF NOTE

There was a generalized observation that a review article and research articles could be drafted out of the current work and accordingly the outlines were designed for the same. It was decided to have video conferences at regular intervals (one in a15 days) in order to keep everyone informed about all the current updates of the project.

Visits of Dignitaries

Dr. Harish Kumar Madhyastha from the Miyazaki University, Japan

Dr. Harish Kumar Madhyastha from the Miyazaki University, Japan visited NIPER-A on 13 September 2018. He addressed NIPER-A students and faculty and informed the students about the ongoing research projects and various Student Exchange Programs that Miyazaki University offers. Dr. Madhyastha apprised the audience about the involvement of Miyazaki University, Japan with the Ministry of Aayush, Government of India and its Memorandum of Understanding (MoU) with reputed technical institutes of Asia. . He advised the faculty members to invest in a collective pool of resources and promote the exchange of research materials through mutual agreement. He delivered his talk on the prospects of "C-Phycocyanin and Ag Nano-hybrid conjugates in dermal wound healing". The informative and invigorating session was followed by a questionnaire round where Dr. Madhyastha cleared the doubts of the enthusiastic audience. Dr. Madhyastha wrapped up his talk with the objective of bridging the knowledge gap between India and Japan. The event concluded with the appreciation and a memento by Director, NIPER-A.

Officials visiting NIPER-A From Government of Gujarat and University of Edinburgh

The objective of visit to have an overview about how NIPER Labs and academic spaces are developed using the pre-fabricated structures. As indicated by your office you might be busy in interviews hence, it is requested to designate a nodal person from NIPER to coordinate and facilitate the visit to NIPER. Subsequent to visit, the officials may have few minutes of interaction with you.

Visits of Dignitaries

Joint Secretary DOP, Shri Rajneesh Tingal visited NIPER-A

On 26th October, 2018 Joint Secretary DOP Shri Rajneesh Tingal visited NIPER-A campus at Gandhinagar.He had a tour to the campus with the Director, NIPER-A and was appraised about functioning and different activities of NIPER A.

Prof. Ajai Kumar (Ret. Faculty and Scientist of IPR, Gandhinagar) Visited NIPER- A

On 8th February, 2019 Prof. Ajai Kumar (Ret. Faculty and Scientist, Plasma Diagnostics Lab, Institute of Plasma Research, Gandhinagar) visited NIPER-A. He visited various labs, interacted with the students and Faculty members and delivered his talk on Cold Atmospheric Plasma (CAP) for therapeutic applications.

Invited Lectures

Guest Lecture By Prof. Saranjit Singh, NIPER Mohali

Prof. Saranjit Singh, Ex-Dean and current Head of the Department of Pharmaceutical Analysis at NIPER, SAS Nagar delivered an informative talk on “Pursuit for 'Inspired Career' in Pharmaceutical Sciences”at NIPER-Ahmedabad campus on 20th July 2018.

The lecture was attended by the masters and research student, faculty and staff members of NIPER-Ahmedabad. The lecture was highly motivational that touched almost every corner to motivate the students to think out-of-the-box. During the lecture, Prof. Saranjit shared the heartfelt stories that motivated him to uptake a career profession in Pharmacy. The lecture was interactive “Two-Way”, during which helargely try to connect with the audience, primarily the students, while understanding their zeal, passion, encouragement as well as encourage them for the holistic adoption of an inspired career in Pharmaceutical Sciences. He initiated his lecture with a few interesting stories from his early childhood and school days that inspired him to join medicine and drug discovery associated field. He confidently backed the potential of youngsters and expressed his full confidence that they are the galaxy of ideas and filled with giant capabilities. Prof. Saranjit univocally recommended NIPERs to be the hub of future medical technologies and discouraged students from being the technicians and timely manpower for current job providers. He also narrated several success stories of NIPER alumni's basically taking examples of the students from NIPER-Mohali and NIPER-Ahmedabad. Dr. Saranjit exceedingly applauded the infrastructure and facility built by NIPER-Ahmedabad in such a short span of time; as well as congratulated for its ongoing success news including the No.1 in TLR & OI; and No.14 Overall Pharmacy Institution @ NIRF-2018. During his lab visit, he was continuously chatting with the faculties and students with a zeal to understand the intense types of research activities going on in NIPER-Ahmedabad. After his talk, Prof Kiran Kalia, Director, NIPER-Ahmedabad offered him a token of appreciation with kind words expressing thanks for his visit to NIPER-Ahmedabad. Both the directors extended their commitment to work together to excel the depth of science, technology, and research in the country.

This visit by Prof. Saranjit was also an eminent opportunity for the faculty members of NIPER-Ahmedabad, wherein, they got several key guiding tips towards their career growth path and future directions in context to their academic, research and funding opportunities. All the attending audiences mostly enjoyed the sensible, motivating as well as experienced words of Dr. Saranjit. Overall, it was one of the memorable visits by yet another legendary of Pharmacy fraternity of the country to NIPER-Ahmedabad.

Invited Lectures

NIPER -Ahmedabad and INSA conducted Sisir Kumar Mitramemorial award lecture by padmashri Prof. Inidra Nath

On 8th June 2018, NIPER- Ahmedabad and Indian National Science Academy (INSA) jointly conducted Shri Sisir Kumar Mitra memorial award lecture by Padmashri Prof. Indira Nath. She delivered an informative lecture on the topic entitled 'FORWARD TO THE PAST - Immune defense against ancient disease of Leprosy' while educating the audience on pathophysiology, clinical intervention, and treatment of leprosy. The Director of NIPER-Ahmedabad, Prof. Kiran Kalia also presented a memento to express gratitude towards Prof. Indira Nath for sparing her time for conveying an enlightening and impactful speech on leprosy that has been prevailing in India for ages. After this session, Prof. Indira visited the laboratories of the Institute where she was largely found interacting with the faculty members and students of NIPER-Ahmedabad. She was immensely impressed to see the advancement of the Institute within a very short span of time. She conveyed her best wishes to the students as well as faculty members to take NIPER-Ahmedabad to new echelons of success.

Guest Lecture by Dr. Narendra soni at NIPER-A

On 9th October 2018, Dr Narendra Soni started his talk with a breif introduction about cadila pharmaceuticals limited, which was started by late Shri I A Modi, with the vision to ensure affordable medicine to needy people in the country. He delivered a talk on QSES (quality, safety, efficacy, concept, scalability) in research and development of formulations. He emphasized how quality guidelines like Q1,Q2,Q3,Q4-Q6 affect the quality of products and needs to be adhered to , in order to ensure quality of finished goods. He also highlighted the importance of quality by design and how it has changed the entire landscape of formulation Development since the era of one variable at a time (OVAT) approach. With his vast experience in the area of drug development, he gave several case studies where excipients played crucial role, in in -vivo performance and mentioned crucial checkpoint which needs to be monitored during product development. His talk was highly informative from formulation, analytical, and quality perspective for the students. The session ended with questions answer from students followed by felicitation of Dr Soni.

Invited Lectures

Talk By Dr Nisha Goswami on Personal Hygiene and Sanitation At NIPER-A

Dr. Nisha Goswami interacted with female students of NIPER-Ahmedabad on 13th September 2018 and discussed regarding female hygiene. She suggested students to maintain good diet and exercise regularly to avoid dismenorrhea. Different methods for good menstruation practices were discussed. Different vaccination required for females of reproductive age such as HPV, Hepatitis-B etc were also discussed to make students aware how number of common diseases can be avoided by these precautions.

Invited lecture by Dr. Harish C. Joshi, Department of Cell Biology, Emory University, Atlanta

On 24th October 2018, Dr. Harish C. Joshi, PhD, is Professor Emeritus in the Department of Cell Biology at Emory University School of Medicine. Dr. Joshi's scientific interests include tubulin isotypes and axonal elongation, gamma-tubulin and drug-discovery for cancer and neuronal degeneration. Dr.Joshi visited NIPER-A campus on a two day visit and delivered his talk entitled "'Lessons from the basic cell biology research to the beginings of drug development".During his visit he interacted with PhD scholars and faculty members from different Departments and discussed their research progress.He also expressed his desire to collaborate with faculty members to work on ischemia reperfusion injury in cardiac/cerebral ischemia. Dr.Joshi's visit has motivated the students and faculty members to work in the forefront of drug development. He also discussed the progress of the ensuing International conference and agreed to be an active member of the Conference Advisory Committee.His overall visit was a great success and his views towards the growth of NIPER-A is deeply appreciated.

Invited Lectures

Scientific Session by Dr. Nishchal Sharma

NIPER-Ahmedabad organized a half-day scientific session on "Column chemistry and effective method development" at the Institute on 26th October 2018. Dr. Nishchal Sharma, Business Development Manager - Column from Waters India Pvt limited delivered a talk on the subject. The special emphasis of the session was to discuss on the silica surface chemistry, physical characteristics, silica bonding procedures and unique chemistries of chromatographic columns. Students acquired additional knowledge on Quality by Design based scientific approaches for developing effective analytical methods.

Effect of chemistry variations of different types of columns, type of bonding, carbon load and end-capping on the chromatographic output of analytical methods were discussed in detail. Tips and tricks for the improvement of chromatographic behavior of small molecules in developing analytical methodology were of particular interest of the session. The potential and future scope of different varieties of bonded phases were discussed in brief. The session ended with a highly interesting interaction of the speaker with the students related to the queries raised on the practical problems on analytical method development.

NIPER-Ahmedabad Institution Innovation Council - Talk by Prof. Anil Gupta, IIM-Ahmedabad

On 8th January 2019, NIPER-A had an enthralling talk on “Grassroots Innovations” by Padma Shri Prof. Anil K. Gupta, Indian Institute of Management – Ahmedabad (IIM-A) as per the agenda of Institutional Innovation council (IIC), an initiative by Ministry of Human Resource and Development (HRD), GoI.

Online Lecture

Online Lecture by adjunct Faculty Prof. Larry Benowitz form Harvard Medical School, Boston, USA

On 16th April 2018, Prof.Larry Benowitz from Harvard Medical School is an adjunct Professor of NIPER-Ahmedabad. The goals of the Benowitz lab are to discover the basic mechanisms that control the growth of nerve connections and to apply insights from this work to promote regeneration and functional recovery after CNS injury. Prof.Benowitz delivered his online lecture on the topic"Rewiring the injured central nervous system" for NIPER-A students.

Online Lecture by adjunct Faculty Dr.Dileep R. Yavagal From Miller School Of Medicine, U.S.A

On 30th August 2018, Dr. Dileep R. Yavagal, MD, FAHA, FAAN, FSVIN is the Director of Interventional Neurology, Co-Director of Neuroendovascular Surgery and Clinical Professor of Neurology and Neurosurgery at the University of Miami Miller School of Medicine. He has recently been appointed to lead the Neurological Cell Therapy Platform at the Interdisciplinary Stem Cell Institute at the University. Dr. Yavagal was introduced to the audience by Dr. Pallab Bhattacharya with an overview of Dr. Yavagal's brief biosketch and a video .Dr. Yavagal delivered his talk entitled Major Advances in Stroke Therapeutics: From IV tPA to Thrombectomy to Cell Based Therapy for Ischemic Stroke. In his talk to NIPER-A student he explained the treatment modalities of stroke in human and also the beneficial effects of intra-arterial stem cell therapy in stroke. He also shared his basic science research findings from small and large animal models and the described his research journey from bench to bedside. After his lecture there was a student faculty interaction and his lecture was enjoyed and appreciated by all students and faculty. The session ended with a thanks note from the Director, NIPER-A.

INTER NIPER SPORT MEET (INSM-2019)

National Institute of Pharmaceuticals Education and Research-Ahmedabad (NIPER-Ahmedabad) have organized the Inter NIPER Sports Meet (INSM) during 18th to 23rd February 2019. INSM-2019 is a momentous occasions to bring the Inter NIPER family together to foster the spirit of leadership, bonhomie and identity amongst all NIPERITES. This year NIPER-Ahmedabad has successfully conducted the sports meet with the dynamic leadership of Prof. Kiran Kalia, Director NIPER-Ahmedabad.

Prof. Kalia have addressed all the students and ignited them to keep up the sporting spirit through the week. The INSM-2019 has started with the high spirit on the morning of 18th Feb. with the encouraging words from Dean NIPER-Ahmedabad, Dr. Pallab Bhattacharya. Chairman of sports committee Dr. Satyasheel Sharma with their committee members Dr. Alok Jain, Dr. Pinaki Sengupta, Dr. Akshay Srivastava and Ms. Rajeshwari Rathod have flagged of the event and dedicated it to the brave martyr of Indian army. The INSM-2019 have also attracted sponsorship from state bank of India (SBI) and alumni of NIPER-ahmedabad. Each year NIPER offer a common platform to their students to exhibit and home their skills in the sport arena. This year it attracts huge participation in every event under its banner from NIPER-Mohali, NIPER-Hyderabad, NIPER-Hazipur, NIPER-Guwahati and NIPER-Ahmedabad. It witnesses participations of more than 250 students to unraveling their nerve to achieve the overall trophy in 9 team and 5 individual sporting events and raising the bar sky high. Students have participated in Cricket, volleyball, Basketball, Football, Badminton, Kabaddi, Throwball, Table tennis, carom, chess and athletics. INSM-19 was organized with much enthusiasm and Josh.

INTER NIPER SPORT MEET (INSM-2019)

All sport events were equally enjoyed and praised by the student athletes for the kind of arrangements and facilities made available to them. INSM-2019 at NIPER-Ahmedabad will be remembered for years to come as a meet of celebration and togetherness in all NIPERs. NIPER-S.A.S. Nagar won the men cricket tournament and NIPER-Hajipur claimed the runner up trophy. In girls cicket NIPER-Hyderabad was the winner and NIPER-Ahmedabad was the runner up. NIPER-S.A.S Nagar claimed the winner trophy in men volleyball and NIPER-Ahmedabad was the runner up. In girl volleyball tournament, NIPER-Hyderabad won the trophy and NIPER-S.A.S. Nagar secured the second position. In football, the final match was played between NIPER-S.A.S. Nagar and NIPER-Ahmedabad.

The football match was ended with nailbiting finish where NIPER-S.A.S Nagar won by one goal. In basketball and Kabbadi NIPER-S.A.S. nagar won the final against NIPER- Guwahati. NIPER-S.A.S. nagar have emerged as overall winner in table tennis tournament. Badminton tournament was also successfully conducted. NIPER-Ahmedabad won majority of indoor games (chess and carom). On the morning of last day, the athletics was organized and students from all the NIPERs have enthusiastically participated in 100m, long jump, triple jump, discus throw and shot put. On the eve of award ceremony, Prof. Kalia (Director NIPER-Ahmedabad) have congratulated all the players from various NIPERs and handed over the awards and medals. She thanked all the faculty incharge of all the NIPERs for their support and appreciated the faculties and staff of NIPER-Ahmedabad for the successful organization of the event. She encouraged the diversity, sportsman spirit and all round development in the NIPERs. Food stalls organised by students NIPER-Ahmedabad on the occasion of Inter NIPER Sports Meet 2019. Cultural Meet organized at NIPER -Ahmedabad during the closing ceremony of Inter NIPER Sports Meet (INSM) 2019

INTER NIPER SPORT MEET (INSM-2019)

INTER NIPER SPORT MEET (INSM-2019)

Winners and Runner up Details - Outdoor Games

Games	Winner	Runner up	Best player award
Cricket boys	NIPER- Mohali	NIPER- Hajipur	Isfaq (NIPER-Mohali)
Cricket girls	NIPER- Hyderabad	NIPER-Ahmedabad	Victor (NIPER-Guwahati)
Football	NIPER- Mohali	NIPER-Ahmedabad	Priti singh (NIPER-Hyderabad)
Basket ball boys	NIPER- Mohali	NIPER-Guwahati	Pruthvi (NIPER-Guwahati)
Basket ball girls	NIPER- Mohali	NIPER-Hyderabad	Lakshita (NIPER-Mohali)
Volley Ball Boys	NIPER- Mohali	NIPER-Ahmedabad	Shaheen (NIPER-Mohali)
Volley Ball Girls	NIPER-Hyderabad	NIPER- Mohali	Krithika Laxmikesav (NIPER-Hyderabad)
Throw ball	NIPER-Hyderabad	NIPER- Mohali	Manasa k (NIPER-Hyderabad)
Kabaddi	NIPER- Mohali	NIPER-Guwahati	Amol Chavan (NIPER-Mohali)

Winners and Runner up Details - Indoor Games

Games	Winner	Runner up
Chess Boys	Pritish kansal (NIPER-Hyderabad)	Sunil shinde (NIPER-Mohali)
Chess Girls	Namrata kulkarni (NIPER-Mohali)	Ajitha (NIPER-Ahmedabad)
Table Tennis Singles Boys	Prashik ramteke (NIPER-Mohali)	Pranay kamble (NIPER-Mohali)
Table Tennis Singles Girls	Mounica Battula (NIPER-Guwahati)	Deepika Patel (NIPER-Mohali)
Table Tennis Doubles Boys	Pranay Kamble And Prashik Ramteke (NIPER-Mohali)	Payas kansara and M. Prabhakar (NIPER-Mohali)
Table Tennis Doubles Girls	Deepika Patel And Kousar Jahan (NIPER-Mohali)	Mounica Battula And Shalu Singh (NIPER-Guwahati)

INTER NIPER SPORT MEET (INSM-2019)

Table Tennis Mixed Doubles	prashik ramteke and deepika patel (NIPER-Mohali)	Amal Prasad And Shalu Singh (NIPER-Guwahati)
Carom Girls	Priya jagtap and ruhi kale (NIPER-Ahmedabad)	Deepika patel and Krishna vasava (NIPER-Mohali)
Carom Boys	Siddhu regu and anil dharavath (NIPER-Ahmedabad)	Goutham Kolli Reddy And Keval Shah (NIPER-Ahmedabad)
Badminton Singles Boys	Manisurya Palepo (NIPER-Guwahati)	Balbir Singh (NIPER-Mohali)
Badminton Singles Girls	Harshita sengar (NIPER-Mohali) and Priti singh (NIPER-Hyderabad) (Joint Winner)	
Badminton Doubles Boys	Shandiliya Mahamuni And Amrez Singh Yadav (NIPER-Hyderabad)	Janak Varma And Aftab Sethi (NIPER-Hyderabad)
Badminton Doubles Girls	Joint winner- sindhu atluri and stephy elza john (NIPER-Guwahati), Kritika laxmikeshav and priti singh (NIPER-Hyderabad)	

Winners and Runner up Details Athletics

Games	Winner	Runner up 1	Runner up 2
100 M RUN-Boys	Soloman annapareddy (NIPER-Mohali)	Samir ranjan (NIPER-Guwahati)	Balbir singh (NIPER-Mohali)
100 M RUN-Girls	Manasa. K (NIPER-Hyderabad)	Kritika laxmikesav (NIPER-Hyderabad)	Mounika battula (NIPER-Guwahati)
Shot-put Boys	Audumbar shinde (NIPER-Hyderabad)	Janak varma (NIPER-Hyderabad)	Soloman annaparedddy (NIPER-Mohali)
Shot-put Girls	Manasa. K (NIPER-Hyderabad)	Shailaja sashikumar (NIPER-Hyderabad)	Anjali goswami (NIPER-Mohali)
Long jump Boys	Pranay reddy (NIPER-Mohali)	Tejas (NIPER-Ahmedabad)	Ramesh Naik (NIPER-Mohali)

INTER NIPER SPORT MEET (INSM-2019)

Long jump Girls	Manasa. K (NIPER-Hyderabad)	Shruti Samlet (NIPER-Guwahati)	Rajnita Ingavale (NIPER-Mohali)
Discus throw boys	Audumbar shinde (NIPER-Hyderabad)	Soloman (NIPER-Mohali)	Mukhtar (NIPER-Hajipur)
Discus throw Girls	Anjali goswami (NIPER-Mohali)	Lakshmi shinde (NIPER-Hyderabad)	Aishwarya Jala (NIPER-Guwahati)

Workshop/Seminar/Conference/ Webinar /Training

International Conference on "New frontiers in Dissolution Science and applications" Venue: NIPER-Ahmedabad

Ever since, dissolution was known to have a significant effect on bioavailability and clinical performance, dissolution analysis of pharmaceutical solids has become one of the most important tests in drug product development and manufacturing, as well as in regulatory assessment of drug product quality. despite the wide use of dissolution testing by the pharmaceutical industry and regulatory agencies, the fundamentals and utilities of dissolution testing are still not fully understood. Considering this fact, NIPER-A in association with Society for Pharmaceutical Dissolution Science (SPDS) organized an international conference entitled "New frontiers in Dissolution Science and applications" on June 25th 2018 at NIPER-A Gandhinagar campus.

The event witnessed professionals from the Pharmaceutical Industry, academia and regulatory bodies. Around 100 participants from Industry and academia attended this conference. Prof. Mukesh Gohel, Professor – Pharmaceutics was the Chief Guest of this event. The legendary dignitaries including Dr. L. Ramaswamy, Prof. Kiran Kalia, Dr. H G Koshia, Prof. Mukesh Gohel and Vijay Kshirsagar graced the event.

Prof. Kiran Kalia, Director – NIPER Ahmedabad warmly welcomed the participants attending this conference and dedicated the event as a mode to provide an enriched platform to fosters the science and technological development in the field of dissolution among pharmaceutical professional, academia, students, regulatory bodies and other stake holders. The conference had 6 eminent speakers from US, France, Switzerland and India who delivered interesting and the brainstorming lectures including

- Dr. Erika Stippler, Principal Scientist at US Pharmacopeia, USA
- Vijay Kshirsagar, Director- TRAC Pharma Consulting, Mumbai, India
- Grove Geoffrey, Product Manager and Application Scientist, SOTAX, USA
- Samir Haddouchi, Managing Director, SPS Pharma Services, Orleans, France
- Dr. Shivang Chaudhary, QbD-Expert™, Ahmedabad, India
- Michel Magnier, Product Manager & Application Specialist, SOTAX AG, Switzerland

Another interesting feature of this event was the demonstration of USP-4 by team of SOTAX India who were the Industry Conference partners for this conference. A large number

Fire and Safety Training program

A fire and safety training programme was conducted at NIPER Ahmedabad on 25 May 2018 for all Staff and Students. The programme aimed to impart methods of raising alarm and reaction drills expected from the environment on any fire incidents on the campus. The participants were made aware of the various types of fire extinguishers and their locations on the campus. They were trained on the usage according to the nature of fire. Participants also got to make ready a fire extinguisher for use and operated it on a live fire lit for the training purpose. The programme was well received and was very educative. It made the participants confident on their abilities to react to any incident of fire on the campus.

Workshop/Seminar/Conference/ Webinar /Training

Organized Industry visit for MS final Year Torent Pharma

NIPER-Ahmedabad organized industry visit for the MS final year students. The students witnessed the state-of-the art R & D centre of Torrent Pharmaceuticals at Bhat (near Ahmedabad) on 26th September 2018 and had a brief exposure on the research activities carried out by their scientists. The welcome message was given by Mr. Suresh which was followed by a short film on the various facilities of Torrent Pharmaceuticals. The students were divided into 3 groups headed by one Torrent employee along with a faculty member of NIPER-A for the visit of R&D facility. NIPER-A students interacted enthusiastically with the research team from various departments like Medicinal Chemistry, Discovery Biology, Formulation & Development, Analytical Development, Bio-Evaluation Centre, and Packaging Development.

In the formulation and development section, students were briefed about the various equipments like tablet compression machine, dissolution apparatus, etc. In analytical department, students have seen different sophisticated instruments like UHPLC and LC-MS. Torrent representatives explained about the regulatory aspects required for the approval of a product and cost associated with the whole process. Next, students visited API synthesis lab discussed the role of process chemistry in drug discovery and also got exposure to NMR and XRD machines. The students were briefed about molecular biology lab, in which they learned about the efficacy testing of the drug by in-vitro analyses. Students were then guided to the Pre-clinical safety evaluation department which was in concordance with the pharmacology lab. The students were briefed about the animal testing methods and the type of pre-clinical animals being tested in that facility. Another interesting point for the students was Bio-evaluation center which has a setup for conducting the bio-equivalence studies. The authorities of the department explained the precautionary procedures during the studies related to incidence of adverse events in human volunteers enrolled in bio-equivalence studies. Finally, NIPER-A faculty members and students forwarded their gratitude to the Torrent officials for informative visit to their facility.

Workshop/Seminar/Conference/ Webinar /Training

Organized Industry visit for MS final Year Students to Cadila-Dholka

We at NIPER-Ahmedabad believe that the learning from textbooks, lectures and other study material does not suffice for holistic learning. Practical, hands-on learning is essential for better understanding of work processes and functions. In this regard, NIPER-Ahmedabad organized industry visit for the MS final year students on 23rd October 2018. The students witnessed the state-of-the art facilities of Cadila Pharmaceuticals Ltd at Dholka (near Ahmedabad). During this visit, student received exposure on practical working environment, and got a good opportunity to gain full awareness about industrial practices. The students also got to know about the manufacturing and research activities carried out by their scientists. NIPER-A students interacted enthusiastically with the research team from various departments while exchanging their ideas and queries. Such Industrial visits give greater clarity about important manufacturing concepts, as students practically experience how these concepts are put into action.

Industry visit for MS final Year to Piramal Pharma Solution

NIPER-A organized industry visit for the MS (3rd sem.) students. The students witnessed the state-of-the art R & D centre of Piramal Pharma Solution (Discovery Solutions) at Matoda, Ahmedabad on 04-12-2018 and had a brief exposure on the research activities carried out by their scientists. The welcome message was given by Mr. Ashish Mehta (Human Resource) which was followed by technical session by Dr. Sanjay Patel and Dr. Manish Mittal. The students were divided into 2 groups headed by Dr. Sanjay Patel and Dr. Manish Mittal respectively along with a faculty member of NIPER-A for the visit of R&D facility. NIPER-A students interacted enthusiastically with the research team from the departments of Medicinal Chemistry and Analytical Development.

During the visit of individual labs, students were briefed about the different steps involved in the preclinical drug development programme followed by demonstration of their various synthetic instruments and instrumentation such as NMR. In analytical department, students have learnt about sophisticated instruments like HPLC, UHPLC and LC-MS. This was followed by lunch and interview of selected students for their job. Finally, NIPER-A faculty Dr. Dinesh Kumar and students forwarded their gratitude to the Piramal Pharma Solution for informative visit to their facility.

Workshop/Seminar/Conference/ Webinar /Training

Visit by students and faculty of CCSIT Junagadh

78 students along with 06 faculties of CCSIT Junagadh visited NIPER Ahmedabad on 12th of December. The students visiting the institute were in final year UG Microbiology as well as Final/First year PG Microbiology. They were briefed on the various research and academic activities of NIPER Ahmedabad in the Auditorium. After refreshments, they were conducted to the labs for a briefing on the research activities being undertaken by the Institute. The students were very impressed and were motivated to aspire for the MS programme/ PhD programme at the Institute.

A letter of Appreciation was also submitted by the visiting faculty to the administration NIPER Ahmedabad

Visit by students and faculty of RK University

56 students along with 03 faculties of RK University Rajkot visited NIPER Ahmedabad on 11th of January 2019. They were briefed on the various research and academic activities of NIPER-Ahmedabad in the Conference room. After refreshments, they were conducted to the labs for a briefing on the research activities being undertaken by the Institute. The students were very impressed and were motivated to aspire for the MS programme/ PhD programme at the Institute.

Workshop/Seminar/Conference/ Webinar /Training

Webinar on India First Leadership Talk Series" by Shri Anand Mahindra

On 1st January 2019, NIPER - A Administrative Staff attended the webinar on "India First Leadership Talk Series" by Shri Anand Mahindra, Chairman, Mahindra Group organized by MHRD Innovation Cell. (08-1-2019)

Webinar on "IPR for Student and Faculty" by Ms. Shwetasree Majumdar (10-1-19)

On 10th January 2019, NIPER-A Faculty and students attending webinar on "IPR for Student and Faculty" by Ms. Shwetasree Majumdar, Principal, Fidus Law Chamber keeping the agenda of Institutional Innovation Council (IIC), an initiative by ministry of Human Resource and Development (HRD), GoI,

Workshop/Seminar/Conference/ Webinar /Training

Webinar on "Planning for Career" by Dr. Anand Deshpande

On 19th March 2019, NIPER - A Faculty and students attended the webinar on "Planning for Career" by Dr. Anand Deshpande, Founder, Chairman, Managing Director Persistent Systems Ltd. as a part of the Leadership Talk Series by MIC.

Elsevier workshop on Scopus and Reaxys

NIPER - A organises Elsevier workshop on Scopus and Reaxys for the students. On 31st January 2019

Webinar On Art Of Decision Making By Shri Ajit Doval Ji, National Security Advisor, Goi

On 19th March 2019, in continuation of MIC – India First Leadership Talk Series (IFLTS), NIPER-A faculty and students attended the webinar (Topic - Art of Decision Making) by Shri Ajit Doval Ji, National Security Advisor, GoI

Workshop/Seminar/Conference/ Webinar /Training

Workshop on 'Role of Electronic Laboratory Notebook towards GxP Compliance'

On 25th March 2019, NIPER-Ahmedabad organized Workshop on 'Role of Electronic Laboratory Notebook towards GxP Compliance'. The objective of this workshop is to sensitize and train students and faculties for advancements in good documentation practices in research field.

The silent features of this workshop are also to 1) demonstrate capabilities of electronic notebook towards 21 CFR Part 11 compliant on-line traceable data entering and 2) provide hand-on experience of electronic notebook to researchers.

Co-Curricular Activities

Personal Development

Personal development club of NIPER-Ahmedabad provides a forum for open discussion on topics relevant to overall personality development and grooming of students. The club conducts activities like group discussions, debating, SWOT analysis, resume building and other skills required for facing job interviews.

Journal Club

It is a platform to provide exposure to the researchers at NIPER-A with recent updates in scientific Diaspora. Utilizing all the available resources; including the past and recent peer-reviewed journal articles, it acts as a tool that gives insight into approach, opportunity and application aspects of ongoing research. It provides an opportunity to improve presentation skills, learn and practice critical thinking, share ideas, knowledge, and experience.

Sports

Every year NIPER-A organizes its sports week to encourage the sports activities in the institute. This year the sports week commenced on 19th November and ended on 29th November 2018. All the students of the institute participated with a great enthusiasm. Sports week was also open for all the faculty and staff members of the institute. Everyone actively participated in various sports such as cricket, volleyball, throwball, Badminton, Football etc. The games were played in great sportsman spirit and students got a chance display their talents in various sports.

The week started with cricket match between 2nd year M.S. and PhD team followed by Volleyball and Throwball matches. Everyday matches of Cricket, Football, Volleyball and Throwball were conducted at the NIPER-A premises. In addition, the badminton, Chess and Carrom matches were organized at the hostel premises of NIPER-A. The matches were played in three categories for girls and boys viz. singles, doubles and mixed doubles. The week was full of exciting victories and near misses. The week with so much of fun and thrill was ended with the finals of boys Volleyball match between PhD and MS 2nd Year students on the 29th November 2018. At the end, the Director addressed to the students and applauds for their enthusiasms and praises them for their participation in all sports followed by the prize distribution ceremony.

Co-Curricular Activities

The results NIPER-Ahmedabad annual sports week

CRICKET BOYS
- Cricket Boys- winners are - 2nd year Team
- Cricket Boys runners are - 1st year team

CRICKET GIRLS
- Cricket girls runner up are - 1st year team
- Cricket girls runner up are - 2nd year team

VOLLEYBOLL BOYS
- Volleyball boys winners are - Ph.D team
- Volleyball boys runner up are - 2nd year team

VOLLEYBOLL BOYS
- Volleyball boys winners are - Phd team
- Volleyball boys runner up are - 2nd year team

CRICKET BOYS
- Cricket Boys- winners are - 2nd year Team
- Cricket Boys runners are - 1st year team

CRICKET GIRLS
- Cricket girls runner up are - 1st year team
- Cricket girls runner up are - 2nd year team

VOLLEYBOLL BOYS
- Volleyball boys winners are - Ph.D team
- Volleyball boys runner up are - 2nd year team

THROWBALL GIRLS
- Throw ball Girls winner are - 1st year team
- Throw ball Girls runner up are - 2nd year team

CHESS BOYS
- Chess boys winner is - Sitesh Shah
- Chess boys runner up is - Yakkala Prasanna Anjaneyulu

CHESS GIRLS
- Chess girls winner is - P. Ajitha reddy
- Chess girls runner up is - Yogeshwari Borade

CARROM BOYS
- Carrom winners are - Goutham Reddy Kolli & Velip Laximan
- Carrom runner up are - Vedant & Tejas

CARROM GIRL
- Carrom winners are - Ruhi Kale & Priya Jagtap
- Carrom runner up are - P.Ajitha Reddy & Kondi Soumya

CARROM MIXED
- Carrom winners are - Keval & Kondi Soumya
- Carrom runner up are - Akshant & Leela Mounika

BADMINTON BOYS SINGLES
- Badminton boys singles winner is - Surya
- Badminton Boys singles runner up is - Rakshasmare Prakash

BADMINTON BOYS SINGLES
- Badminton boys singles winner is - Surya
- Badminton Boys singles runner up is - Rakshasmare Prakash

BADMINTON GIRLS SINGLES
- Badminton girls singles winner is - Ruhi Kale
- Badminton girls singles runner up is - Maria Bohra

BADMINTON BOYS DOUBLES

- Badminton boys doubles winner are - Vignesh & Bhushan
- Badminton Boys doubles runner up are - Anil & Ashok

BADMINTON GIRLS DOUBLES

- Badminton girls doubles winner are - Priya Jagtap & Chaitali Shaha
- Badminton girls doubles runner up are - Sonali Jain & P.Ajitha Reddy

BADMINTON DOUBLES (MIXED)

- Badminton doubles Mixed winner : Rajasekhar Reddy & Chaitali Shaha
- Badminton doubles Mixed runner up : Tejas Chavan & Shruti Chavan

Extra-Curricular Activities

Cultural Activity

A celebration of Navaratri (Garba Night) of NIPER-A at Gandhinagar campus.

The night of 12th October saw a lot of grandeur and glamour as it was the “Garba Night” of NIPER-Ahmedabad, at Gandhinagar campus. All the students, faculties and staff members actively participated in the event in their traditional attires. Dancing to the tunes of “SaneDo, Bhai Bhai, Hinch” all the students enthusiastically celebrated theso-called grand festival of Gujarat. Girls in their ghagra cholis and boys in kediyos look simply alluring and added glory to the night. The event was very enjoyable as all the students, faculties and staff members enjoyed thoroughly.

Kite festival celebration

NIPER-Ahmedabad celebrated kite festival with all the students, faculty and staff on 14th January 2019. The student, faculty and staff enjoyed the Undia Jalebi lunch after the kite festival celebration in the afternoon.

72nd Independence Day Celebration at NIPER-Ahmedabad Campus Gandhinagar - 15th August 2018

On 15th August 2018, NIPER-Ahmedabad commemorated the 72nd anniversary of India's independence. The celebration began with the flag hoisting of Director Prof. Kiran Kalia followed an eloquent speech by her that messaged everyone to 'Respect freedom'. She urged the gathering to work dedicatedly towards the betterment of our country and promote the unity as well as the integrity of the nation. During her address, she expressed her happiness on the progress-path, which the nation has taken and motivated the faculties and students to join the revolution by striving hard to bring innovations and inventions to the country.

National Festivals and Events

Prof. Kiran Kalia quoted various engaging success stories of the country and stressed that one should endeavor to be a better version of oneself, and for the same, we all should work hard each day. She stated that “Quality building” is not a one or two-day task but is the result of one's persistent effort with a quality check (called Retrospection) of each day. The Registrar, teaching faculty and the students of NIPER-Ahmedabad also shared their thoughts. To mark the celebration, sweets were distributed with the exchange of greetings among all peers.

Further, the flag hoisting was succeeded by a Mobile-based Online Quiz (Title: Journals Club's "GK Meet") organized by the Journal Club of NIPER-Ahmedabad facilitated by Dr. Rakesh Tekade in which the students, faculty, as well as the staff members, actively participated. The event was a leap step taken by NIPER-Ahmedabad to incorporate the Online-Education tools in academic activities of the institute. The Mobile-based Online Quiz was won by Ashutosh Goswami (Winner), Bhavesh A. K Shrisagar (1st Runner-up) and Rohit Parkale (2nd Runner-up). The event was concluded with the volleyball matches organized by the Sports Committee of NIPER-Ahmedabad.

National Festivals and Events

70th Republic Day

70th Republic Day was celebrated at NIPER-Ahmedabad on January 26th 2019. The event started with flag hosting by Director of NIPER-Ahmedabad. Students, Faculty and staff members performed on the occasion of Republic day to pay respect to our country achievement and achievers.



हिंदी पखवाडा समारोह, नाईपर - अहमदाबाद (१४-२७ सितम्बर, २०१८)

राष्ट्रीय औबधीय शिक्षा एवं अनुसंधान संस्था (नाईपर) अहमदाबाद में १४ सितम्बर से २७ सितम्बर, २०१८ तक हिंदी पखवाडा मनाया गया।

राजभाषा समिति नाईपर - अहमदाबाद द्वारा आयोजित इस कार्यक्रम में विभिन्न प्रतियोगिताओं का आयोजन किया गया, जिनमें निबंध - लेखन, प्रार्थना - पत्र लेखन, प्रश्नोत्तरी, चित्र - प्रदर्शनी, वाद - विवाद, हिन्दी बोलचाल की भाषा एवं स्वरचित कविता पाठ प्रमुख रहीं।

इस आयोजन में विदयार्थियों का उत्साह देखते ही बनता था। विदार्थी अपने नियमित अनुसन्धान के साथ - साथ विभिन्न प्रतियोगिताओं की तैयारियों में भी तल्लीन देखे गए। कोई हिंदी - व्याकरण की तैयारी कर रहा था, कोई निबंध की, तो कोई प्रश्नोत्तरी की, इस प्रकार का वातावरण देखकर कोई भी हिंदी प्रेमी बडा प्रसन्न होता।

इस आयोजन में उल्लेखनीय बात यह रही कि जो विदयार्थी हिंदी - भाषी राज्यों से नहीं आये हैं, जैसे आंध्र प्रदेश, महाराष्ट्र, केरल आदि उन्होंने भी विभिन्न प्रतियोगिताओं में बढं - चढ कर हिस्सा लिया और उनका प्रदर्शन सभी निर्णायक गणों एवं दर्शक गणों ने सराहा। विभिन्न प्रतियोगिताओं में निर्णायक दल स्थानीय प्राध्यापक रहे।

National Festivals and Events

इस हिंदी पखवाडां का शुभारम्भ १४ सितम्बर को मुख्य अतिथि के रुप में सरदार पटेल विश्वविद्धयालय के हिन्दी विभाग के प्रोफेसर मदन मोहन शर्मा, संस्थान की निदेशक महोदय प्रो. किरण कालिया एवं राजभाषा समिति के अध्यक्ष डो. अमित शारद के कर - कमलों द्वारा मारत माता के समक्ष दीप प्रज्वलन एवं पुष्पार्पण करके हुआ। इसके पश्चयात औषध विभाग के सचिव श्री जय प्रिय प्रकाश जी का हिंदी दिवस पर शुभकामना सन्देश सभागार में पढा गया। हस अवसर पर हमारे मुख्य अतिथि ने अपने वक्तव्य में हिन्दी भाषा को सरल बनाने का सुज्ञाव दिया और कहा कि इस दिशा में काम भी चल रहा है, ताकि लोग हिंदी का अत्यधिक उपयोग सरलता के साथ कर सके। संस्थान के निदेशक प्रो. किरण कालिया ने भी हिंदी भाषा पर अपने विचार प्रकट करते हुए कहा कि, संस्थान के ज्यादा क्रियाकलाप अंग्रेजी माध्यम में होता है, फिर भी यहा के विदयार्थियों ने जिस तरह हिंदी पखवाडे का में भाग लिया है एवं उन्होंने जो पकड हिंदी में बनायी है, उससे हम भी विदयार्थियों से बहुत कुछ सिख्र सकते हैं और आने वाले समय में हिंदी में भी काम किया जा सकता है।

इस कार्यक्रम में आयोजित चित्र प्रदर्शनी की आभा विलक्षण थी। विभिन्न प्रतियोगियों ने अपने विचार नियत विषय "जल ही जीवन है" पर चित्र एवं नारे के माध्यम से उकरे। कृतियां इतनी सुन्दर और भावपूर्ण थीं कि निर्णायक मंडल के सदस्य दुविधा में पड गए कि किस कृनि को पुरस्कार करें और किसे नहीं। वाद - विवाद प्रतियोगिता का विषय था, "औधोगिकीकरण" जिससे अधिकांश लोगों ने विकास एवं रोजगार को महत्व देते हुए इसके पक्ष में अपनी राय रखी।

हमने पहला दिन सुलेख्र प्रतियोगिता से शुरु किया, उसके परचात निबन्ध लेख्रन, प्रार्थना - पत्र लेख्रन, हिंदी बोलचाल की सामान्य भाषा का प्रयोग, चित्र प्रदर्शनी, प्रनोत्तरी, स्व - कविता पाठएवं वाद - विवाद की प्रतियोगिता का क्रमश: आयोजन किया गया।

National Festivals and Events

इस बार कुल १८६ प्रतिभागियों ने इस प्रतियोगिता में भाग लिया, जहां प्रार्थना पत्र लेखन में १८, वाद - विवाद में ११, स्व - कविता में १, प्रनोत्तरी में २४, हन्दी बोलचाल की सामान्य भाषा एवं निबंध में २९ - २९ प्रतिभागियों ने भाग लिया वहीं सबसे ज्यादा सुलेख प्रतियोगिता में कुल ६४ विदार्थीयो ने प्रतिस्पर्धा में भाग लिया।

इस पखवाडे का समापन २७ सितम्बर को गुजरात विदयापीठ के हिंदी के प्रोफेसर एवं विभागाध्यक्ष अतिथि प्रो. जशवंतभाई पंडया की उपस्थिति में हुआ। उन्होंने साहित्य पर जोर देते हुए कहा की "साहित्य समाज का आईना है और समाज साहित्य का दर्पण है, अर्थात ये एक दुसरे के पूरक हैं। पूर्व काल एवं मध्य काल से ही महान लोगों का हिंदीं का प्रचार - प्रसार में काफी योगदान रहा है, चाहे वह सगुण भक्ति द्वारा के माध्यम से हो या निर्गुण मक्ति द्वारा। हिंदी साहित्य हमें प्रेम और सद्भावना का पाठ भी पढाता हौ। "

संस्थान के निवेशक प्रो. किरण कालिया ने कार्यक्रम विवरण देते हुए, कार्यक्रम की प्रतियोगिताओं, स्पर्धक की संख्या और उनके उत्साह के बारे में बताया। राजभाषा समिति के अध्यक्ष डो. अमित शारद ने अंतिम मे पखवाडे की सफल आयोजन एवं इसमें शामिल सदस्यो के लिए धन्यवाद व्यक्त किया।

कार्यक्रम के अंत में विभिन्न प्रतियोगिताओं के विजेताओं के नामों की घोषणा की गई। अतिथिश्री को स्मृति चिन्ह प्रदान कर आभार प्रकट किया गया।

इस समारोह की सफलतापूर्वक आयोजन में राजभाषा समिति के अध्यक्ष डो. अमित शारद तथा इसके सदस्य श्री सुजीत पाठक, श्री नरेंद्र कुमार, सुश्री कोमल पाण्डेय का भी सहयोग सराहनीय था।

Teachers Day Celebration

On 5th September 2018, Teacher's Day was celebrated with high enthusiasm at NIPER-Ahmedabad. Several activities and series of event were planned by students of NIPER-Ahmedabad to dedicate the eve towards the teachers and appease the role of a teacher in their life. The live and humorous anchoring by MS student Mr.Vignesh Kotian and Geetesh Verma added the live-hood and fun to the event. The teaching and non-teaching staff introduced in riddles and students in the audience side were asked to guess the faculty members. Astonishingly, students promptly recognized the teachers with exact matching with the riddles. Following this, faculty members were called upon the stage and presented with mementos by students. Some fun-filled games were organised for teacher's which included musical chair and antakshari. The event ended with cake cuting and merry note from students and teachers!

National Festivals and Events

NIPER-A Celebrates the 150th Birth Aniversary of Mahatma Gandhi

On 2nd October, 2018 NIPER-Ahmedabad celebrated 150th Gandhi Jayanti to honour the Father of the Nation and his contribution in the national Freedom Movement with great zeal, enthusiasm and patriotism. The programme was opened by Dean, NIPER-A Dr. Pallab Bhattacharya and faculty Dr. Dinesh Kumar with a special tribute to Gandhi ji and elaborated the Gandhi's vision, talked about its prevalence and distortion in the current times and inspired the students to follow the Gandhi's principle of Non-Violence. It was followed by assay writing competition on Gandhi's life. Several students participated in this competition and presented their view on Gandhi's life, his struggle for freedom and his life-philosophy. Going a step forward, the students of NIPER-A were given a deep insight into the life and times of Mahatama Gandhi and encouraged to think about the sacrifice of our freedom fighters, analyze the importance and understand the value of freedom.

Celebrate world Environment Day

With increasing industrialization , there is increasing awareness about protection and improvement of the human environment. Changes in environment has direct for bearance on the well-being of people and economic development throughout the world. To mark the importance of having a healthy environment for better living, NIPER- Ahmedabad Celebrated World Environment Day on 5th June, 2018. The event was celebrated by planting several saplings at NIPER Ahmedabad Campus by both student and staff followed by deliberations and discussion about how to keep our environment clean and green. Keeping in view the theme of “Beat Plastic Pollution”,of this year World Environment Day, it was pledge to minimize the use of plastic by doing minor changes in our everyday lives so as to reduce the heavy burden of plastic pollution on our natural resources.

National Festivals and Events

Celebrate World Pharmacist day with Quiz Competition

NIPER Ahmedabad celebrated world pharmacist day on 22nd September with a lot of fanfare and conducted several activites to make it memorable. The Day sarted with Small medical camp organized at NIPER-Ahmedabad premises for blood sugar level estimation for NIPER students faculty and staff.Several sudents , staff and faculty actively participated in the same and got their sugar level tested. In addition a quiz was arranged for both faculty and students with questions having an intersting mix of historical to recent advancements in pharmaceutical sciences. The quiz was thoroughly enjoyed by all, with team of faculty being declared winner . Prior to the Quiz, a breif highlight about Pharmacist day and its relevance was given by NIPER Dean, Dr Pallab Bhattacharya and the event ended with a congratulatory note by Director NIPER Ahmedabad, Prof Kiran Kalia.

Celebration of National Unity Day (Rashtriya Ekta Diwas)

On the occasion of the National Unity day “Rashtriya Ekta Diwas” on 31st October, 2018 the birth anniversary of Iron Man of India Sardar Vallabh Bhai Patel was celebrated in NIPER- Ahmedabad. Honourable director Prof. Kiran Kalia addressed the students and staff members in auditorium and everyone took the pledge for maintaining the unity and integrity of the nation. After the pledge, the director flagged off for the RUN FOR UNITY where everyone including students, faculty and staff members participated actively. The run was from NIPER-A main gate till CRPF gate and then again back to NIPER gate.

This run vitalized and motivated the students for sharing their views regarding the life and great contributions of Sardar V. Patel for the nation and his role in independence of India. The event was concluded with refreshment.

National Festivals and Events

Vigilance Awareness Week Celebration

Vigilance Awareness Week was observed in NIPER Ahmedabad from 29th October 2018 to 03rd November 2018. The Theme decided by the "Vigilance Commission was “Eradicate Corruption - Build a New India.”The Awareness Week Programme commenced with a pledge on 29th Oct 2018 at 11:00 AM in the Auditorium. The Integrity Pledge was taken by all students, staff and faculties. Despite this, each one was also encouraged to take an e -pledge online. Purchase section sent out a letter to all our vendors to take the Integrity Pledge online. To spread the awareness on Vigilance and the Integrity Pledge, volunteer students also organized a pamphlet distribution and awareness campaign in Palaj Village with standees and banners and informed the villagers on vigilance and corruption free India. An elocution competition was also organized in auditorium in which several students participated and best speakers were rewarded by Director. The first winner was Mr. Gautham, Second was Mr. Narendra and third was Mr. Parth

Name of Competition	Name of Winner	Class
Speech Competition on corruption free India	Mr. Goutham Reddy (1st)	MS 2nd Year
	Mr. Narendra Kumar (2nd)	MS 2nd Year
	Mr. Parth Gupta (3rd)	Phd. 1st Year

National Festivals and Events

Integrity Pledge for Citizens

I believe that corruption has been one of the major obstacles to economic, political and social progress of our country. I believe that all stakeholders such as Government, citizens and private sector need to work together to eradicate corruption.

I realize that every citizen should be vigilant and commit to highest standards of honesty and integrity at all times and support the fight against corruption.

I, therefore, pledge:

- To follow probity and rule of law in all walks of life;
- To neither take nor offer bribe;
- To perform all tasks in an honest and transparent manner;
- To be accountable for my actions;
- To act in public interest;
- To lead by example exhibiting integrity in personal behaviour;
- To report any incident of corruption to the appropriate agency.

National Festivals and Events

Celebrated National Science day on 28th February 2019

Everything we see around us has a component of science in it. If not, then scientist will definitely find out by research". NIPER-Ahmedabad celebrated National Science Day on 28th February 2019. An ignition lecture was delivered by Dr. Ravi Shah on topic "Proficiency at a glance". An Mobile-based Online Quiz (Title: Journals Club's "GK Meet") organized by the Journal Club of NIPER-Ahmedabad facilitated by Dr. Rakesh Tekade in which the students, faculty, as well as the staff members, actively participated. The Mobile-based Online Quiz was won by Surbhiben Mohanlal Desai (Winner), Darshan Mahesh Contractor (1st Runner-up) and Ruhi Arvind Kale (2nd Runner-up).

Swachhata Pakhwada

Mahatma Gandhi dreamed not only of free India but also of clean and developed India. Mahatma Gandhi secured freedom for Mother India, so now it is our endeavor to serve Mother India by keeping the country neat and clean. To keep the country clean I take this pledge that i will remain committed towards cleanliness and devote around 100 hours per year that is just two hours per week to conduct cleanliness drive voluntarily. I will neither litter nor let others litter. I will initiate the cleanliness drive from myself, my family, my locality, my village and my work place. I believe that the countries of the world that appear clean because their citizens don't indulge in littering nor do they allow it to happen. With this firm belief, I will propagate the message of Swachh Bharat Mission in villages and towns. I will encourage 100 other persons to take this pledge which i am taking today.

I will endeavor to make them devote their 100 hours for cleanliness. I am confident that every step I take towards cleanliness will help in making my country clean. NIPER-Ahmedabad celebrated "Swachhata Pakhwada" between 1st to 15th September 2018. The program was inaugurated by a pledge for cleanliness under leadership of Dr. Kiran Kalia. The pledge involved maintaining cleanliness and taking its responsibility individually. The students thoroughly cleaned their respective labs. It was followed by a collective cleaning activity of NIPERAhmedabad garden, canteen area, playground, and corridors. The drive was followed by cleaning Palaj village near NIPER-Ahmedabad campus. Hostel premises were also cleaned actively by all the students, faculty members and non-teaching staff of the institute. Several programs were undertaken under this event. Distribution of Pamphlet on use

of Solar power and other renewable sources of energy was also done. Awareness on avoiding use of plastic recycling and reuse was disseminated in form of placards and pamphlets. Plantation of saplings was done by students and faculties of NIPER A under the leadership of the Director. Institute also undertook beautification drive of the divider on the road astride NIPER A and planted flowering shrubs on the divider. The Director felicitated the workers, the participants who participated wholeheartedly in the Swachhata Pakhwada. students at last day ceremony.




Swachhata Pledge

Mahatma Gandhi dreamt of an India which was not only free but also clean and developed
Mahatma Gandhi secured freedom for Mother India
Now it is our duty to serve Mother India by keeping the country neat and clean
I take this pledge that i will remain committed towards cleanliness and devote time for this
I will devote 100 hours per year that is two hours per week to voluntary work for cleanliness
I will neither litter nor let others litter
I will initiate the quest for cleanliness with myself, my family, my locality, my village and my work place.
I believe that the countries of the world that appear clean are so because their citizens don't indulge in littering nor do they allow it to happen
With this firm belief, I will propagate the message of Swachh Bharat Mission in villages and towns.
I will encourage 100 other persons to take this pledge which i am taking today.
I will endeavor to make them devote their 100 hours for cleanliness.
I am confident that every step I take towards cleanliness will help in making my country clean.

NIPER
अहमदाबाद
AHMEDABAD

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