Department of Science & Technology
(Government of Gujarat)

GUJCOST SPONSORED NATIONAL SEMINAR

on

"GLIMPSES OF RECENT ADVANCES IN PHARMACEUTICAL SCIENCES"

17th December, 2022

ABSTRACT BOOK

ORGANIZED BY

Shri B. M. Shah College of Pharmaceutical Education& Research,
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ABOUT BMCPER

- **Shri B. M. Shah College of Pharmaceutical Education and Research, Modasa was established in the year 1998 with the initiation of visionary trustees of The M. L. Gandhi Higher Education Society to cater the needs of pharmacy education in rural and backward areas like Sabarkantha in Gujarat. The institute has been accredited for three years by National Board of Accreditation (NBA), affiliated with Gujarat Technological University, Ahmedabad and approved by All India Council of Technical Education (AICTE) and Pharmacy Council of India (PCI), New Delhi. Institute runs AICTE approved PG courses in Pharmaceutics, Quality Assurance.**
- **Students had successfully realized our vision and mission within a few years by getting higher rank in GATE, GRE, TOFEL and university examination. Thirty three scholars have been completed their Ph. D. from this Institute.**
- **The institute is well equipped with conventional Analytical and Sophisticated instruments like double beam UV, FT-IR, AAS, Spectrofluorimeter, GC, HPLC, HPTLC, and modern equipments for the manufacture of drug formulations.**

VISION-MISSION

VISION

To nature the students for educational excellence and scientific temperament with moral and ethical values that built the spirit of health care.

MISSION

Our creed: to generate globally competent health care professionals, striving towards excellence through benchmark system by fostering multifacious quality education in heritage of pharmacy.

MESSAGE FROM SECRETARY

- The Vision of the management is to ensure high quality education by building and running institutions par excellence in the fields of pharmacy and college of education, by equipping the students with latest techniques and make them role models in their chosen fields. The aim is to enable them to reach greater heights and also to inculcate ethical values and discipline in them, thereby, help them become good and useful citizens of India.
- Good health is a requirement to human efficiency and development process. A healthy community is the infrastructure upon which an economically viable society can be built.
- I welcome prospective students with world-winning ambitions to benefit from these exclusive strengths of the institutions and I am positive that our education will enable them to thrive as competent professionals and successful entrepreneurs anywhere in the worlds.
- The institute has achieved success at every step since it was established in 1998. This year in 2023 the college is celebrating its silver Jubilee year and it is termed as a renowned college among the other leading institutions of the state. BMCPER is established to groom students to become self-reliant professionals in the field of pharmacy who would become constructive citizens of the societies, they live in. I am grateful to President Shri N. R. Modi for fulfilling all the requirements and always kind to institute.
- **Dr. Ghanshyambhai J. Shah**

  Secretary

  The M. L. Gandhi Higher education Society,

  Modasa, Gujarat, India.

MESSAGE FROM PRINCIPAL

- Gaining knowledge alone is not Education, but it is that what makes us better human beings and so determines the future of the country. Education toward healthcare profession should help one to acquire life skills, there by live well, behave well to others and contribute his/her best to the society/nation/world. Ultimately the aim of Education should be the real peace in the world, where persons only use, develop and spread the positives in them. Father of our nation, Mahatma Gandhi has beautifully observed the meaning of Education as 'the all-round drawing out of the best in child and man, in body, mind and spirit'.
- The institute has a highly qualified, committed, and talented teaching faculty who facilitate the students to keep abreast with academic challenges and developments. Our teaching-learning methods encourage inter-disciplinary approaches through innovation projects, conferences, seminars, talks, and workshops. Experiential learning techniques are used for the effective implementation of the curriculum. Here in this College, we are in that effort to bring out the best in our student-teachers, in all aspects, so that they are equipped to do the same when they become the real teachers later. All the activities are organized here as a team work by the faculty to achieve this common goal.
- The institute has achieved success at every step since it was established in 1998. This year in 2023 the college is celebrating its silver Jubilee year and it is termed as a renowned college among the other leading institutions of the state. BMCPER is established to groom students to become self-reliant professionals in the field of pharmacy who would become constructive citizens of the societies, they live in.
- I feel very glad to serve as a principal of the institute run by a Visionary "The M. L. Gandhi Education Society" in its gross root under the guidance & support of our beloved Secretary Dr G J Shah. Let's try together to become supreme in the profession of pharmacy.
- **DR. ALPESH D. PATEL**

  Principal, BMCPER, Modasa

MESSAGE FROM PROGRAM COORDINATOR

- It is a great pleasure that Department of Pharmaceutics of BMCPER, Modasa is organizing GUJCOST sponsored a one day National Seminar on "Glimpses of Recent Advances in Pharmaceutical Sciences". It is landmark event for the Institute. The seminar aims to be a key national forum for the exchange and spreading of technical Information on "Recent Trends in Novel Drug Delivery System" among B. Pharm, M. Pharm and Ph.D Students, academicians and scientists in the domain of interest around the nation. Innovation in pharma field is an essential ingredient for the industrial and all-round development of India. The theme of seminar and contribute wider conclusions on Novel Drug Delivery Systems and related topics which are indispensable for human progress in general and country in particular.
- I would like to thanks the organizing committee, technical committee and student volunteers who has put so much effort to make this a successful conference. My sincere thanks to participants and poster presenters of this seminar whose kin interest in the field of Pharmaceutical Sciences, which I am sure to help to build a powerful future through innovation in pharma technology.
- **Dr. Sanjay S. Patel**
- **Professor – Pharmaceutics Department, BMCPER, Modasa.**
- **Program Co-ordinator**

- **ABSTRACT: PC01**
- **TITLE:** FORMULATION AND EVALUATION OF MOUTH DISSOLVING FILM OF PERAMPANEL
- **AUTHOR:** Meet Sachdev
- **CO-AUTHOR:** Rajnikant Suthar
- **COLLEGE NAME:** A.R. COLLEGE OF PHARMACY VALLABH VIDYANAGAR

ABSTRACT

- The present research was carried out to formulate mouth dissolving film (MDS) of perampanel drug. Perampanel was used in patients over 12 years old for the treatments of partial-onset seizures that may or may not occur with generalized seizures. The film was able to deliver the drug to the site of application through oral mucosal tissues. This dosage form is advantageous for the unconscious patients and patients suffering from epilepsy because they are not able to take tablet. In this study, different film formulation with the drug was prepared by using different polymers and plasticizers to select the best one which has the optimum and required characteristics. The film was prepared by solvent casting technique. 32 Full factorial design was used to optimize the MDS. Independent variables in this design was concentration of film former (HPMC-E15) and plasticizer (PEG-400). Disintegration time, folding endurance and %drug release at 5 min was selected as response for this design. All nine (F1-F9) formulations were characterized for different parameters and revealed satisfactory results. From the result it was found that F7 batch shows 14±0.549 sec disintegration time, 282±2.039 and 95.55±0.204% at 5 min.

- **ABSTRACT: PC02**
- **TITLE:** Design and Development of Quetiapine Fumarate Extended Release Pellets
- **AUTHOR:** Shah Samirkumar Jagmohandas
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Quetiapine Fumarate atypical antipsychotic drug, rapidly absorbed, having short half-life, eliminated quickly so require frequent dosing of drug to achieve suitable therapeutic activity so to avoid this limitation the development of oral extended release formulation and maintain an effective drug concentration in the systemic circulation for a long time . Extended release pellets were prepared by Extrusion and Spheronization Method using Compritol ATO 888 as a matrix forming agents to control the release of drug and lactose as a channelling agent to act as a pore forming agent. 32 full factorial design was used for optimization of formulation variable. The concentration of polymer (Compritol ATO 888) (X1) and concentration of channelling agent (Lactose) (X2) were selected as independent variables, while, drug release at 6 hrs (Q6), 12hrs (Q12) and 18hrs (Q18) time required for drug release 90% (t90) selected as a dependent variable. Prepared Extended release pellets were evaluated for Physical characteristic, % yield of pellets, % drug loading, %friability, mean particle size and In Vitro drug release. The release mechanisms were explored and explained by applying zero order, first order, Higuchi and Korsmeyer equations. Regression analysis and analysis of variance were performed for dependent variables. All the formulations were evaluated. The physical properties of pellets are exceptable range. Optimized formulation (F4) showed 100.25% drug release at the end of 24 hrs and maximum similarity factor (f2= 93.86) and minimum dissimilarity factor (f1= 1.38) with theoretical release profile of Quetiapine Fumarate. Optimized formulation followed by anomalous fickian release mechanism and found to be stable after 30 days at accelerated condition. It was observed that concentration of polymer and concentration of channelling agent had a significant effect on drug release rate. It was concluded that drug release rate decrease with increase in concentration of polymer and drug release rate increase with increase in the concentration of *channelling* agent.

- **Keywords:** Quetiapine Fumarate, Extrusion Spheronization, Extended Release Pellets, Compritol ATO 888, Lactose, 3^2 full factorial design

- **ABSTRACT: PC03**
- **TITLE:** Design and development of intranasal gel of Teriflunomide
- **AUTHOR:** Dhruvi A Shah
- **CO-AUTHOR:** Dr. Alpesh D. Patel
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Nasal gel formulations have recently gained attention in pharmaceutical field with various likely effects of other nasal preparation such as solid, liquid, and spray. Nasal gel preparation can be prepared easily, more likely accepted, offers much and rapid onset of action, bypass first pass metabolism, low risk of side effects, increased residence time, improved patient compliance and protect the drug from enzymatic degradation. Teriflunomide is a selective, non-competitive and reversible inhibitor of mitochondrial dihydroorotate dehydrogenase, which blocks the de novo synthesis of pyrimidines.

- **ABSTRACT: PC04**
- **TITLE:** A Liquisolid Compacts: An Approach for Dissolution Enhancement of Poorly Aqueous Soluble Drugs
- **AUTHOR:** Priyanka Shah
- **CO-AUTHOR:** Maulik Patel
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Solubility plays a key role to achieve desired concentration of drug in systemic circulation and show its pharmacological action. An approach of liquisolid technique, developed by Spireas, was employed for the dissolution enhancement of poorly aqueous soluble drugs. Initially, liquid medication (liquid drug or drug solution or suspension in hydrophilic liquid vehicle) is transformed to free-flowing, non-sticky, compressible powder by the addition of suitable carrier material and coating materials for the development of liquisolid compacts. The postulated mechanism for enhanced solubility was improved wettability of drug and enhanced surface area of molecularly dispersed drug in the liquid environment. Pre and post the compression tests were performed for the developed liquisolid compacts to obtain optimized formulation. For the optimized compacts, FTIR and DSC studies were performed for determining drug-excipient compatibility; SEM and PXRD studies were performed to study the solid-state characterization. In conclusion, liquisolid compact formulation was proved to be safe, economic and alternative approach to formulate solid oral dosage forms of poorly aqueous soluble drugs.

- **Key Words:** Liquisolid Compact, Poorly aqueous drug, Wetttability of drug

- **ABSTRACT: PC05**
- **TITLE:** MAGNETIC NANOPARTICLES IN TARGETED DRUG DELIVERY: A REVIEW
- **AUTHOR:** Mit Nakrani
- **CO-AUTHOR:** Maulik Patel
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Magnetic nanoparticles are one of the most important and widely used types of nanomaterials, whose unique properties make them special compared to other nanostructures. These particles can be used in various fields. But their role in biomedicine, especially in the field of drug delivery, is significant because their inherent magnetism facilitates many tasks, including targeting, which is very important and necessary in drug delivery. In the present article, an attempt has been made to give general information about magnetic nanoparticles and the properties of particles in biomedical applications. In the following, special attention has been paid to the properties of these particles in drug delivery and their various applications have been studied. The importance of coating magnetic nanoparticles has also been mentioned as a basic requirement for medical applications. In the following, the method of drug loading in magnetic nanoparticles, the entry of particles into the body, targeting, and drug release are discussed, and finally, a brief discussion is presented regarding the pharmacokinetics of drugs and their toxicity in the body.

- **Keywords:** Magnetic nanoparticles, nanostructure, drug delivery, bio medical

- **ABSTRACT: PC06**
- **TITLE:** Multifunctional Co-processed Adjuvant For OrodispersibleTablet Formulation
- **AUTHOR:** Jay K. Joshi
- **CO-AUTHORS:** Sanjay Patel, Maulik Patel.
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- A co-processed excipient is any combination of two or more excipients obtained by physical co-processing that does not lead to the formation of covalent bonds. By co-processing two excipients, formulators can produce an excipient with superior properties as compared to the individual ingredients. Excipients play an important role in formulating a dosage form. There is no single component excipient fullfills all the requisite performance to allow an active pharmaceutical ingredient to be formulated into specific dosage form.

- **Keywords :-** Co-processing, Excipients, superior properties

- **ABSTRACT: PC07**
- **TITLE:** Formulation design, development and characterization of drug delivery system using niosomes containing anticancer agent.
- **AUTHOR:** Afsa Kureshi
- **CO-AUTHORS:** Yadav Vikas Kamlesh, Rajesh s. Palva.
- **COLLEGE NAME:** A.R. COLLEGE OF PHARMACY VALLABH VIDYANAGAR

- **ABSTRACT**
- The present study is to develop an inhalation niosomal formulation of Ceritinib for effectively targeting the drug in the Lung. Thus, the undesirable side effects associated with Ceritinib by oral route can be avoided. Niosomes were prepared by thin-film hydration method using span-60, cholesterol & DCP. In the preliminary study niosomes prepared with various concentration of Span-60 & cholesterol were selected. The central composite design was applied for the optimization of niosomes. The effect of the independent variable (Concentration of Span-60, Cholesterol & hydration time) on the dependent variable (Particle size & %EE) was evaluated. In-vitro drug release study of optimized batch was performed. The optimized batch was further studied for DPI (Dry Powder Inhaler). The DPI niosomes was prepared by using the spray drying technique and further characterization was done. The in-vitro drug release of DPI niosomes was also performed and the surface morphology of optimized formulation of niosomes as well as DPI niosomes was evaluated by TEM and SEM respectively. The FTIR analysis of drug with excipients indicated the compatibility of drug with excipients. The optimized batch of niosomes as well as DPI niosomes showed satisfactory results when evaluated for particle size (395.5nm), %EE (72.28%), PDI (0.321), Zeta potential (-28.0) and in-vitro drug release of optimized niosomes (68.03%) and DPI niosomes (72.85%) at 48hrs. TEM and SEM results showed the spherical shape of niosomes. The present study reports the development of Ceritinib-loaded inhalation niosomes may be a promising alternative to overcome the problem of the conventional oral drug delivery system of Ceritinib.

- **Keywords:** Ceritinib, lung cancer, Central composite design, optimization, niosomes, Dry Powder Inhaler.

- **ABSTRACT: PC08**
- **TITLE:** Formulation & Development of Self Nanoemulsifying Drug Delivery System of Vardenafil HCl Trihydrate to Enhance Dissolution Rate
- **AUTHOR:** Hardik K. Patel
- **CO-AUTHORS:** Dr. Naitik D. Trivedi, Dr. Vaishali T. Thakkar , Dr. Alpesh D. Patel
- **COLLEGE NAME:** A.R. College of Pharmacy.

ABSTRACT

- The aim of the present investigation was to formulate and optimize the self nanoemulsifying drug delivery systems (SNEDDS), a promising oral drug delivery system of Vardenafil HCl Trihydrate (VDN) a poorly soluble drug to enhance the oral absorption of VDN by improving its solubility and hence dissolution rate. SNEDDS are the isotropic mixtures of oil, surfactant, co-surfactant and drug that form oil in water nanoemulsion when introduced into the aqueous phase under gentle agitation. Solubility of VDN in different oils, surfactants, and co-surfactants was determined for the screening of excipients. Capmul GMO 50 showing a highest solubilization capacity was selected as oil. Self nanoemulsifying capacity of surfactant Labrasol and co-surfactant PEG 300 were compared for the selected oil phase. Pseudoternary phase diagrams were constructed by the aqueous titration method, and formulations were developed based on the optimum excipient combinations with the help of data obtained through the maximum nano emulsion region containing combinations of oil, surfactant, and co-surfactant. The formulations of SNEDDS were optimized by experimental designs. The encouraging results of SNEDDS suggests its potential application for oral delivery of VDN for treatment of erectile dysfunction.

- **Key Words:** Vardenafil HCl Trihydrate, Self Nanoemulsifying Drug Delivery System, Capmul GMO 50, Labrasol, PEG 300, Solubility.

- **ABSTRACT: PC09**
- **TITLE:** NANOTECHNOLOGY and NANOSCIENCE
- **AUTHOR:** Raj Raval
- **CO-AUTHORS:** Harsh Panchal, Chirag Pagi
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Nanoparticles, as drug delivery systems, With the help of nanotechnology, damaged tissue can be reproduced or repaired. The poster will focus on the importance and applications of nanotechnology. Nanotechnology has made excellent contribution in the field, of stem cell research. These technologies have a great impact in tissue engineering studies and have a great potential for biomedical applications.

- **ABSTRACT: PC10**
- **TITLE:** VESICULAR DRUG DELIVERY SYSTEM
- **AUTHOR:** Yusuf Malekji
- **CO-AUTHOR:** Noor Vhora
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Abstract: Vesicular drug delivery system can be defined as highly ordered assemblies consisting of one or more concentric bilayers formed as a result of self-assembling of amphiphilic building blocks in presence of water.

- **Key word:**
- Routes of delivery, Types of delivery system, Important factors for drug delivery, Factors affecting drug delivery

- **ABSTRACT: PC11**
- **TITLE:** Role Of Nanoparticles In The Treatment Of Lung Cancer
- **AUTHOR:** Patel Vaidehi Nileshbhai
- **CO-AUTHORS:** Patel Pranchal, Bhagora Purvashi
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Worldwide, lung cancer is one of the leading cause of cancer death in both men and women . new therapeutic agent have been developed to treat lung cancer that could change this mortality-rate. Interestingly , incredibie advances have occurred in resent years in the development and application of nanotechnology in the detection ,diagnosis ,and treatment of lung cancer . Nanoparticle(NPs) have the ability to incorporate multiple drugs and targeting agent and therefore lead to an improved bioavailability ,sustained delivery ,solubility ,and intestinal absorption. This review briefly summarizes the latest innovation in therapeutic nanomedicine in lung cancer with examples on magnetic, lipid, and polymer NP. Emphasis will be placed on future studies and ongoing clinical trials in this field.

- **Keywords:-**drug delivery ;lipid nanoparticles ;lung cancer; magnetic nanoparticles ;polymer nanoparticles.

- **ABSTRACT: PC12**
- **TITLE:** APPLICATOIN OF NANOTECHNOLOGY IN
- PHARMACEUITCAL SCIENCE.
- **AUTHOR:** MUSKAN K. GANDHI
- **CO-AUTHORS:** DHRUPAL P. PATEL, RACHANA K. PATEL
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Nanotechnology deals with the study of smaller structure with a size range between 0.1 to 100 nm. covers various areas like biophysics, molecular biology, and bioengineering and sub specialties of medicine such as cardiology, ophthalmology, endocrinology, oncology, immunology etc.. Pharmaceutical nanotechnology applies the methods and principles of nanoscience and nano medicine to pharmacy to develop new drug delivery system which can comeover the drawbacks of conventional drug delivery systems. Application of nanotechnology into pharmaceutics helps in the formulation of more advanced drug delivery systems and so it is an important and powerful tool as an alternative to conventional dosage form. Pharmaceutical nanotechnology is a specialized field which will change the fate of the pharmaceutical industry in near future. Pharmaceutical nanotechnology helps to fight against several diseases by detecting the antigen associated with diseases and also by detecting the microorganisms and viruses causing the diseases.

- **KEYWORDS:** Nanotechnology, Drug development, Pharmaceutics, Pharmaceutical nanotechnology.

- **ABSTRACT: PC13**
- **TITLE:** Nano Emulsion
- **AUTHOR:** Kadiwala Ikram Husain
- **CO-AUTHORS:** Vraj Prajapati, Patel Dhruv
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTARCT:-

- Nano-emulsions are nanosized emulsions , which are manufactured for improving the delivery of active pharmaceutical ingredients. These are the thermodynamically stable isotropic system in which two miscible liquids are mixed to form a single phase by means of an emulsifying agent ,i.e., surfactants and co-surfactants. The droplet size of nano emulsion falls typically in the range 20-200 nm. The main difference between emulsion and Nano emulsion lies in the size and shape of particles dispersed in the continuous phase. The attention is focused to give basic idea about its formulation, method of preparation, characterization techniques, evaluation parameters, and various applications of Nano emulsion.

- **KEYWORDS:-**
- Nano emulsion, drug delivery, emulgents, high-pressure homogenization.

- **ABSTRACT: PC14**
- **TITLE:** Importance of Nanocarriers in Drug Delivery system
- **AUTHOR:** Yaksh Bhavsar
- **CO-AUTHORS:** Jayvardhansinh Rathod, Kiran Khant
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTARCT:-

- The use of nanotechnology in medicine and more specifically drug delivery is set to spread rapidly. Currently many substances are under investigation for drug delivery and more specifically for cancer therapy. Pharmaceutical science is using nanoparticles to reduce toxicity and side effect of drugs and up to recently did not realize that carrier systems themselves may impose risks to the patients. The most common types of nanoparticles are Metal nanoparticles, liposomes, nano crystals and polymeric nanoparticles. This advantages include the mechanism of increased penetration and retention, the transport of insoluble drugs and the controlled release. Nanocarriers have been used to circumvent the problems associated with conventional antitumor drug delivery systems, including their nonspecificity ,severe side effects, burst release and damaging the normal cells. Nanocarriers improve the bioavailability and therapeutic efficiency of antitumor drugs

- **KEY WORDS:** Nanoparticles, Cancer therapy, Drug delivery, Route of administration, Insoluble drug, Nanocarriers, Anti tumor

- **ABSTRACT: PC15**
- **TITLE:** NOVEL(NDDS) and TARGETED DRUG DELIVERY SYSTEM
- **NAME OF AUTHOR:** Umar Patel
- **CO-AUTHORS:** Karan Solanki, Naushad Rajpura
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT:

- a new approach that combines innovative development, formulations, new technologies, novel methodologies for delivering pharmaceutical compounds in the body as needed to safely achieve its desired pharmacological effects.

- **Key Words:** Drug delivery systems, therapeutic agent, diseases, target site, body fluids, Non targeting tissues, drug etc

- **ABSTRACT: PC16**
- **TITLE:** HERBAL NOVEL DRUG DELIVERY SYSTEM
- **NAME OF AUTHOR:** Ashutosh Shukla
- **CO-AUTHOR**: Amar Raval.
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT:

- Plants are nature's remedies and have been used by human beings on earth since ancient times for food and medicine. Today there are global movements towards finding of herbal medicaments in plants to bring them in market via a suitable drug delivery system for mankind. The basic thought behind it is treatment of each disease is hidden in nature. However, delivery of herbal drugs also requires modification with the purpose to achieve sustain release, to increase patient compliance etc. previously herbal drugs could not attract scientists towards the modifications of novel drug delivery systems due to processing, standardizing, extracting and identification difficulties. But now days with the advancement in the technology, novel drug delivery systems (NDDS) open the door towards the development of herbal novel drug delivery system

- **ABSTRACT: PC17**
- **TITLE:** QBD APPROACH FORMULATION AND EVALUATION OF HYDROGEL CONTAINING ETHANOLIC SEED EXTRACT OF COIX LACRYMA JOBI L.
- **NAME OF AUTHOR:** Dr. Gopi Patel
- **CO-AUTHORS**: Dr. Bhavna A. Patel, Dr. Rajesh Parmar
- **COLLEGE NAME:** Anand Pharmacy College, Anand.

ABSTRACT:

- Coix lacryma jobi L. (Poaceae or Gramineae) is a traditional medicinal plant. Its seeds known as coix seed or adlay seed. Based on literature review, several phytochemical constituents are present in seeds having different activities. The active constituent Coixol have anti-fungal, anti-inflammatory, anti-obesity and anti-diabetic activity. Coixol is chemically 6-Methoxy-3H-1, 3-benzoxazolinone, The current study was undertaken to formulate and evaluate herbal hydrogel containing ethanolic seed extract of plant Coix lacryma jobi L, Carbapol 934, HPMC E5, triethanolamine and methylparaben. The effects of critical parameters (concentration of Carbapol 934p and HPMC E5) were investigated by executing design of experiment using 32 factorial designs through Design Expert 12 version software. All the formulation were developed and evaluated for visual inspection, pH, viscosity, spreadability, drug release and drug content. Optimized formulation was subjected in-vitro antifungal activity against Candida albicans. Stability studies conducted under accelerated condition and at room temperature were shown acceptable results, It was concluded that hydrogel containing ethanolic seed extract showed good consistency, spreadability, homogeneity as well as stability. This study confirmed that quality by design is an effective approach for understanding the quality parameters for optimizing Hydrogel formulation.

- **Keyword:** Coix lacryma jobi L., 32 factorial designs, QbD, Candida albicans

- **ABSTRACT: PC18**
- **TITLE:** Patent in pharmaceutical science Study on Law of pharmaceutical patent
- **AUTHOR:** Jayveersinh V. Puvar
- **CO-AUTHORS:** Shilpan S. Pateliya, Het G. Patel
- **COLLEGE NAME:** Anand Pharmacy College, Anand.

ABSTRACT:

- India is known as the global pharmaceutical capital because of the ever growing generic drug manufacturing industry. With the growth of Such an industry the issue of protection to pharmaceutical patents is also gaining importance. Pharmaceutical patent protection is of prime importance to pharma companies because of the huge amount of money invested in the R&D of the drugs and the amount of scientific hard work put in. The paper throws light on the current status of pharmaceutical industry in India as well as the world and the subsequent issues related to it. It elaborates on the historical journey of pharmaceutical patents through various amendments in the year 1970, 1999, 2002 and 2005 respectively and deals with the crucial issues related to pharmaceutical patents viz. the debate over product and process patents; access to cheaper medicines; the issue of compulsory licensing and the patent infringement of pharma patents. It analyses the future of pharmaceutical patents through case studies of some of the latest and most landmark judgments passed in the history of pharmaceutical patents.

- **Keywords:** Pharmaceutical Patent, Indian Patent Law, Patents advantages in pharma industry, Global patent law ill pharma industry, Patent importance in research and development.

- **ABSTRACT: PH01**
- **TITLE:** BIG DATA ANALYTICS IN HEALTHCARE
- **AUTHOR:** Nayankumar C. Ratnakar
- **CO-AUTHOR:** Tushar M. Patel
- **COLLEGE NAME:** L. M. College of Pharmacy

ABSTRACT

- In medical engineering and healthcare use cases, big data analytics are becoming more and more prevalent. Big data analytics are reducing medical expenses and personalizing care for each patient, according to stakeholders. Large-scale genetics studies, public health, individualized and precision medicine, the creation of novel drugs, etc. can all benefit from the application of big data analytics. Understanding big data in healthcare requires an overview of its types, sources, and characteristics as well as the uses and advantages of big data and big data analytics in the industry. Big data analytics in healthcare has made significant technological strides in recent years. These developments include artificial intelligence (AI) with big data, infrastructure and cloud computing, advanced computation and data processing, privacy and cybersecurity, management of health economic outcomes and technology, and smart healthcare with sensing, wearables, and the Internet of Things (IoT). Genomic data (genotyping, gene expression, and DNA sequence), clinical data (blood pressure, temperature, heart rate, etc.), human- and machine-generated data (from various medical sensors, home monitoring, smart devices, and telehealth), biometric data (fingerprints, signatures, iris scans, etc.), administrative, transactional, and business data (healthcare insurance) are all examples of healthcare data. Big data analytics has the potential to aid in the prediction of disease outbreaks. Continuous aggregation and analysis of public health data facilitate detecting and managing potential disease outbreaks, such as the flu. Integration of various data from clinical services, patents, and public research aids in the discovery of new drugs. Personalized and precise patient care is made possible by big data-derived linkages that prompt updates of patient triage and diagnosis. Big data technology have been employed in monitoring adverse medical events, doing illness surveillance, tracking patient sentiment and mobility,

- **ABSTRACT: PH02**
- **TITLE:** The Review of importance of patents to innovation
- **AUTHOR:** Tithi S. Patel
- **CO-AUTHOR:** Jiya K. Maheshwari, Vishva K. Patel
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Patents have long been considered essential incentives to foster innovation, particularly the development of new prescription drugs, due to the lengthy, costly, and risky nature of the research and development (R&D) process as compared to the lower levels of investment and risk associated with generic drug entry. Compared with other forms of intellectual property protection (such as trade secrets, trademarks, and copyrights) and strategic complementary assets (such as lead time, sales and service, and manufacturing advantages), researchers focused on the US since the 1980s consistently have found patents to be more important to R&D in pharmaceuticals than in other industries. Despite many changes in the market and patent landscape, the most recent data from government surveys and annual surveys of licensing professionals continue to find differential and high importance of patents to biopharmaceutical innovation.

- **Keywords:** Biopharmaceuticals, Innovation, Intellectual Property Protection, Patents

- **ABSTRACT: PA01**
- **TITLE:** REVIEW ON : Analytical Method Development and Validation
- **AUTHOR:** Happy M. Patel
- **CO-AUTHOR:** Maitri S. Patel, Srushti K. Prajapati
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Development and validation of analytical method play an essential role in the discovery, development and manufacturing of pharmaceuticals. Every year, number of drugs entered into the market; hence it is mandatory to develop newer analytical methods for such drugs. After the development, it becomes necessary to validate the new analytical method. Method development is the process which proves that the analytical method is acceptable for use. Validation of analytical method gives information about various stages and parameters like accuracy, precision, linearity, Limit Of Detection, Limit Of Quantification, specificity, range and robustness. Validation should be done as per regulatory guidelines such as ICH guidelines. This article was prepared with an aim to review analytical method development and validation.

- **Keywords** = Analytical method, Spectroscopy, UV-VIS , spectroscopy, Chromatography, HPLC, Method development, Validation

- **ABSTRACT: PA02**
- **TITLE:** A review on analytical method validation and its regulatory perspectives
- **AUTHOR:** Happy Shah
- **COLLEGE NAME:** Shri B M Shah College of Pharmacy, Modasa, Gujarat.

ABSTRACT

- Analytical methods plays vital role in the process of identification, separation and then quantification of chemical components in natural materials or synthetic materials based on their chemistry. The main purpose of the analytical method development and validation is to prove that proposed analytical method is accurate, specific, precise and robust in the pharmaceutical industry for analysis of a drug moiety. Analytical method development gives important information in the pharmaceutical industry, on the potency of a drug the drug's bioavailability, the drug's stability and also its effects. The analytical method validation is essential for analytical method development and tested for specificity, linearity, accuracy, precision, range, detection limit, quantitation limit and robustness in summary, analytical method development and validation confines that an accurate, precise and reliable potency measurement of a pharmaceutical preparation can be performed.

- **Keywords:**
- HPLC, HPTLC, UPLC, GC MS,SOP

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WINNERS OF POSTER PRESENTATION

1st Rank: Hardik Patel

2nd Rank: Yaksh Bhavsar

3rd Rank: Vaidehi Patel

MEDIA COVERAGE

મંગળવાર તા. ૨૦ ડિસેમ્બર, ૨૦૨૨ (સાબરકાંઠા આવૃત્તિ) ગુજરાત સમાચાર 3

મોડાસા ડિગ્રી ફાર્મસી કોલેજમાં નેશનલ સેમિનાર યોજાયો

મોડાસા,તા.૧૯

ગુજકોસ્ટ ગાંધીનગર દ્વારા મોડાસા ડિગ્રી ફાર્મસી કોલેજમાં એક દિવસીય નેશનલ સેમિનારનું આયોજન કરવામાં આવ્યું હતુ. આ સેમિનારમાં મંડળના પ્રમુખ નવીનભાઈ મોદી,માનદ મંત્રી ધીરૂભાઈ પ્રજાપતિ,આચાર્ય ડા.અલ્પેશભાઈ પટેલ તથા ગુજરાતની વિવિધ કોલેજના ૧૭૫ કરતા વધારે વિદ્યાર્થીઓ તથા અધ્યાપકોએ ભાગ લીધો હતો.જેમાં ૨૨ રિસર્ચ પ્રોજેકટ પ્રસ્તૃત કરવામાં આવ્યા હતા.

સાબરકાંઠા-અરવલ્લી III
SANDESH AHMEDABAD TUESDAY, 20•12•2022

મોડાસા ડિગ્રી ફાર્મસી કોલેજમાં નેશનલ સેમિનાર યોજાયો

ધનસુરા : ગુજકોસ્ટ, ગાંધીનગર દ્વારા બી.એમ. શાહ કોલજ ઓફ ફાર્માસ્યુટિકલ એજ્યુકેશન એન્ડ રિસર્ચ,મોડાસા ડિગ્રી ફાર્મસીમાં એક દિવસીય નેશનલ સેમિનારનું આયોજન તા.૧૭ના રોજ કરાયું હતું. સેમિનારનું ઉદ્ઘાટન મંડળના પ્રમુખ નવિનભાઈ મોદી, માનદ્મંત્રી ધીરૂભાઈ પ્રજાપતિ, એલ.એમ.ફાર્મસી કોલેજના અધ્યાપક ડા. કેતનભાઈ રાંચ,કોલેજના આચાર્ય ડા.અલ્પેશભાઈ પટેલ તથા સેમીનારના કો-ઓર્ડીનેટર ડા.સંજયભાઈ પટેલે કર્યું હતું. વિવિધ કોલેજના ૧૭૫ જેટલા વિદ્યાર્થીઓ તથા અધ્યાપકોએ ભાગ લીધો હતો.અને ૨૨ રીયર્ચ પ્રોજેકટ પ્રસ્તુત કરવામાં આવ્યા હતા.