1st SBSCON 2024

One Day Conference on

"Current Trends in Drug Development and Pharmacy Practices"

Organized by

SHAHEED BHAGAT SINGH COLLEGE OF PHARMACY
PALAMPUR, DISTT. KANGRA (H.P) 176061

In Association with

Himachal Pradesh Technical University, Hamirpur (H.P)

In Collaboration with

Society of Pharmaceutical Sciences and Research (SPSR)

On Date 18th March 2024

ABSTRACT BOOK

Approved by PCI-New Delhi, Affiliated to HPTU Hamirpur, HPTSB, Dharamshala (H.P)
Email: sbscppalampur@gmail.com, Website: www.sbscppalampur.com
College Address : Near Netaji Subhash College of Nursing, Palampur, Distt. Kangra (H.P)

ABOUT CONFERENCE

The first SBSCON-2024 conference aimed to provide a platform for professionals and researchers to discuss and exchange insights on the latest advancements in drug development and industrial pharmacy. The goal of is to gather scholars from different colleges to present advances in the relevant fields and to exchanging ideas and information related to Current trends in drug development and Pharmacy Practices. This conference will also provide an ideal environment to develop new skills and opportunities in pharmaceutical fields.

ABOUT COLLEGE

Shaheed Bhagat Singh College of Pharmacy is situated in the lush green outskirts of a pleasant hill station surrounded by old British Tea Plantation at Palampur Himachal Pradesh. This prestigious college is affiliated to Himachal Pradesh Technical University-Hamirpur, Himachal Pradesh Technical Shiksha Board-Dharamshala and approved by the Pharmacy Council of India, New Delhi. In order to fulfill the demands of fast changing global scenario and make the students more competent. The college is well equipped with spacious laboratories, classrooms, seminar hall, well stocked library, playground, a huge auditorium and other basic facilities for personal development of the students including hostel facility. This institution keeps the quality and completeness of its student's education at top most priority.

OBJECTIVES

- **To showcase new research and development in pharmaceutical industry.**
- **Knowledge exchange among participants.**
- **Emerging technologies influencing drug development and industrial pharmacy practices.**
- **To create networking opportunities for future collaborations.**
- **To showcase new research and development in pharmaceutical sciences.**
- **Provide insights on innovative approaches and strategies in drug development.**
- **Industry- academia collaboration fostering new projects and knowledge transfer.**
- **Provide insights into current market trends with the evolving pharmaceutical landscape.**

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Dr. Vikram Patial- Principal Scientist, CSIR Palampur

SPECIAL KEYNOTE SPEAKER
Dr. Arun Chandan
Director-Ministry of Ayush, Govt. of India
Prof. (Dr). Mahendra Singh Ashawat
Director Cum Principal- Laureate Institute of Pharmacy, JawalaJi (H.P)

Schedule

TIME	EVENT
09:30 to 10:00 am	Registration
10:00 to 10:30 am	Inaugural Ceremony
10:30 to 11:00 am	Felicitation
11:00 to 11:10 am	Unveiling the Conference Souvenir
11:10 to 11:30 am	Welcome address by Chairman and Convener
11:30 to 12:20 pm	Keynote address by Chief Guest & Guest of Honour
12:20 to 1:00 pm	Scientific Session-I
1:00 to 1:30 pm	Scientific Session -II
1:30 to 2:00 pm	Lunch
2:00 to 2:30 pm	Poster Presentation and Model Presentation
2:30 to 3:00 pm	Cultural Program
3:00 to 3:30 pm	Prize Distribution
3:30 to 4:00 pm	Valedictory Function

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Call for Registration and any query Call: 7972742255, 9736610757

GUIDELINES FOR THE ABSTRACT AND POSTER PRESENTATION:

You are invited to submit abstract of your scientific endeavour for poster presentation in about 250-300 words to scientific committee electronically at sbsconference@gmail.com on before 14th March 2024.
Abstract should be typed in Microsoft word (Times New Roman, Font size 12) with capital and boldface title and headings. Presenting the author's name should be in bold and only 2 students should participate in one poster including guide's name. Selected abstracts will be published in proceedings of the conference. Poster must be in size 3×4. The Topic of the poster should be relevant to the conference theme.

GUIDELINES FOR MODEL MAKING:

Only two students should participate for model making for any one of the following topics-

- Human Anatomy and Physiology.
- Different Dosage Forms.
- Route of Drug Administration.
- Industrial Equipments

REGISTRATION FEES:

Participants	Registration Fee
Academic, Industry Professionals, Research Scholar & Faculty.	500/-
Students (D.Pharm, B.Pharm, M.Pharm)	400/-

ACCOUNT DETAIL:

Account Name: MD Shaheed Bhagat Singh College of Pharmacy,
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Branch: Palampur,
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IFSC: HDFC0001736

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ACCOMODATION:

The arrangement of accommodation will be provided on payment basis in hostels.

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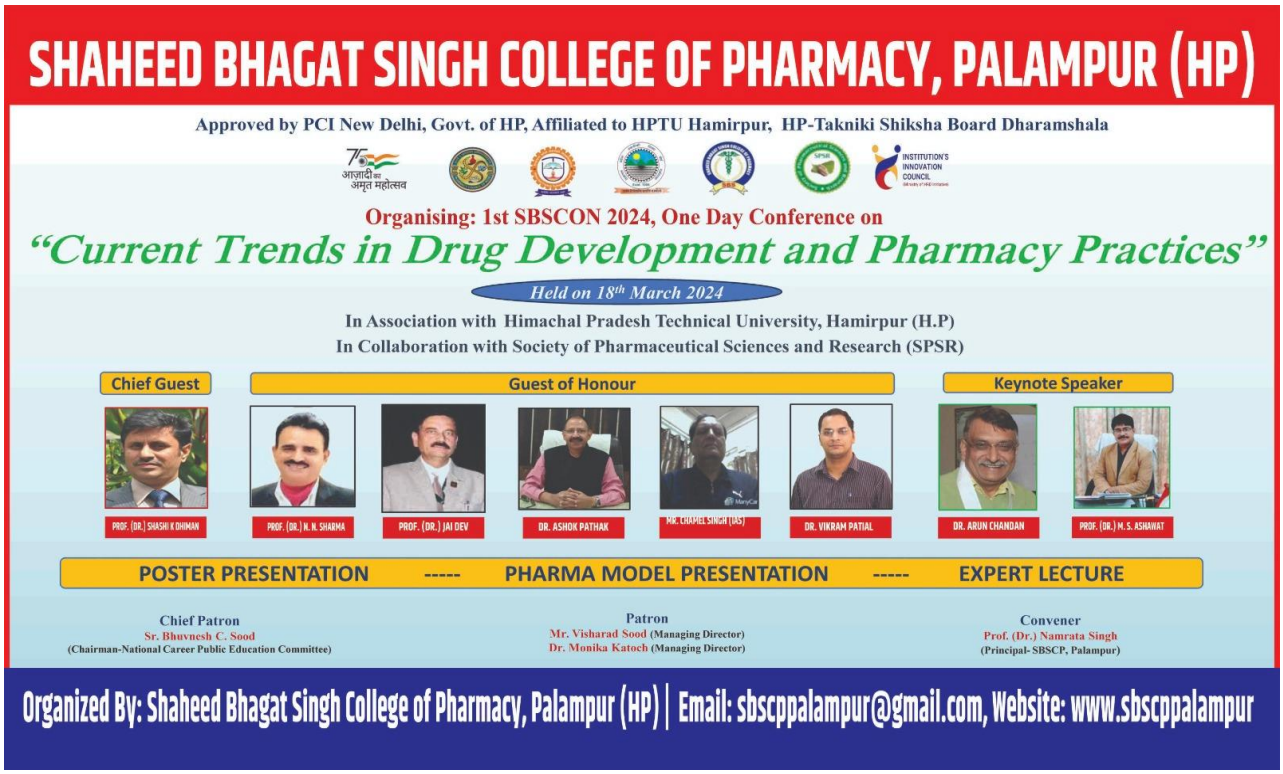
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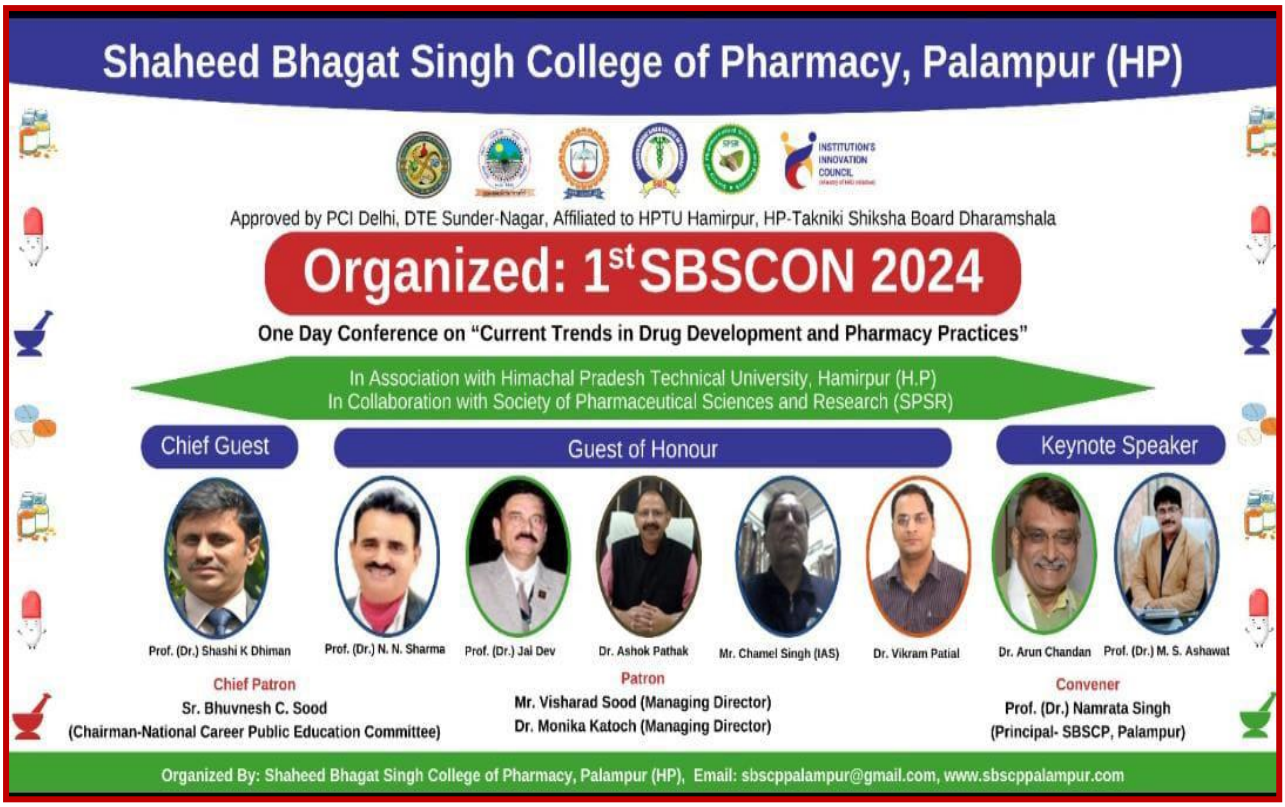
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Email: sbscppalampur@gmail.com

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SBSCP-01

FORMULATION AND EVALUATION OF TRANSDERMAL PATCHES OF LORNOXICAM

Shashi Upasna[1]*, Dr. Namrata Singh[2]

1. Asso. Prof., Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
2. Director cum Principal, Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)

E-mail: upasna841@gmail.com

ABSTRACT:

Objective

With the advent of new era of pharmaceutical dosage forms, transdermal drug delivery system (TDDS) established itself as an integral part of novel drug delivery systems. To overcome shortcomings of lornoxicam from conventional routes of administration, it can be formulated into TDDS. The drug also possess ideal characteristics such as high potency, smaller dose(8-16mg),short biological half-life(4-5hrs)etc. to be formulated into a TDDS. The aim of work was to formulate and evaluate transdermal patches to prolong the drug release time, to reduce the frequency of administration and to improve patient compliance.

Method

Transdermal patches were prepared by using solvent casting method. Both drug free and drug loaded transdermal films were prepared and mercury was used as a substrate for casting the polymeric solution.

Result

The drug free patches were evaluated for uniformity of thickness, weight variation, folding

endurance, tensile strength, % moisture loss, water vapor transmission rate and swellability. The drug loaded patches were evaluated for drug content and in-vitro diffusion studies etc. The formulation AIS showed the best drug diffusion (94.33%) and hence was considered as the best formulation.

Conclusion

The current study resulted in the successful development and evaluation of transdermal patches of lornoxicam, capable of surmounting the shortcomings of oral administration of lornoxicam, such as rapid elimination and higher gastrointestinal side effects.

SBSCP-02

A REVIEW ON RESPIRATORY SYSTEM

Ananya*[1] Anshul [2], Shivangi Sharma[3]
Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
E-mail:shivangis074 @gmail.com

ABSTRACT:

The respiratory system includes the nose, mouth, throat, voice box, windpipe, and lungs.Air enters the respiratory system through the nose or the mouth. If it goes in the nostrils (also called nares), the air is warmed and humidified. Tiny hairs called cilia protect the nasal passageways and other parts of the respiratory tract, filtering out dust and other particles that enter the nose through the breathed air.

The two openings of the airway (the nasal cavity and the mouth) meet at the pharynx or throat, at the back of the nose and mouth. The pharynx is part of the digestive system as well as the respiratory system because it carries both food and air.

At the bottom of the pharynx, this pathway divides in two, one for food — the esophagus which leads to the stomach — and the other for air. The epiglottis a small flap of tissue, covers the air-only passage when we swallow, keeping food and liquid from going into the lungs

SBSCP-03

HEMODIALYSIS AND ITS PHISIOLOGY

Ishita dhiman*[1],Shashi upasna[2]
Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
E-mail: upasna841@gmail.com

ABSTRACT:

Hemodialysis is the most common method - used to remove waste and toxic substances from the body, hence it is used to treat patients of different types of renal failure. Upto 1960s, attempts were made to reduce the side/adverse effects associated with hemodialysis and to make hemodialysis an effective therapy. Now-a-days many advanced and sophisticated dialysis machines have been designed which make dialysis therapy more convenient and promising. Hemodialysis therapy requires complete coordination between the health care team which includes nephrologists, dietitian, nurse, technician and social worker. Patient and his/her family also coordinate the procedure to make hemodialysis more

effective. But even with the use of modern and effective dialysis machines for therapy patients may still suffer from different types of complications. Objective: The purpose of this study was to observe those complications and also their management during and after dialysis. Place and conducted year: Data was collected by convenience sampling technique in local hospital of Lahore in December, 2016. Study design: Retrospective approach was used and notices the case history of 100 patients. Methods: Retrospective approach was used and the case history of 100 patients (from morning and evening shifts) who had hemodialysis over a 1-5 year period was noted. Demographic and clinical data of patients who died during dialysis were compared to the control group comprised of the survivors of hemodialysis. Data was analyzed using SPSS IBM version 16. Result: In this study it was observed that patients may suffer from various complications. 38% patients suffered from hypotension, 13% patients suffered from cramps, Itching was observed in 15% of patients, Vomiting was observed in 18% of the patients and in 5% patients dialysis reaction was observed. In order to manage these complications normal saline and 5% dextrose were administered to the patients. Hydrocortisone Sodium Succinate was administered intravenously in order to manage dialyzer reaction and session was postponed. Although hemodialysis is beneficial but it poses certain risks as well.Conclusion:Hemodialysis is associated with various life threatening complications however these complications occur in low frequency and these can be managed and prevented by various protective therapies by health care team and medical staff.

Keywords: *Intradialyitc ; Cramp ; Frequency ; Complications.*

SBSCP-04

DOUBLE CONE BLENDER: PHARMACEUTICAL IMPORTANCE

Muskaan*[1], Ishita[2], Shikha choudhary[3]
Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
E-mail: shikhachoudhary26@gmail.com

ABSTRACT:

Operation in pharmaceutical manufacturing, in fact, it is difficult to find a product where mixing is not involved in some stage of the process It is difficult to determine, what degree of mixing is required in particular circumstances and ways to assess the same. Blending operation could be affected by the physical properties of the materials to be mixed, blending time, rotation speed and percentage of blender capacity. Poor uniformity of the blend is obtained especially during the mixing of low dose drug with large amount of excipient. Chlorpheniramine maleate is example of one such drug. Optimization of the mixing procedure in a double cone blender for a potent drug like

Chlorpheniramine maleate was carried out. For uniform mixing of the blend following parameters were optimized blending time, rotational speed and fill volume. Statistical techniques like Analysis of Variance also known as ANOVA was applied to designed experiments to determine variations within a batch, within equipment or even due to operators. It proved to be a valuable tool in maintaining product and process uniformity by comparing two or more groups. This method can be employed in pharmaceutical industry for optimization of equipments for higher production output and uniform mixing of low dose drug.

Keywords: *Double cone blender, Chlorpheniramine maleate, Optimization, ANOVA*

SBSCP-05

MEDICINAL PLANTS: PAST HISTORY AND FUTURE PERSPECTIVES

Rana Palak*[1], Ritu[2], Astha[3],
Shaheed Bhagat Singh College of Pharmacy, Palampur (HP)
E-mail: palakrana1705@gmail.com

ABSTRACT:

Human societies have been in close contact with their environments since the beginning of their formation and used the ingredients of the environment to obtain food and medicine. Awareness and application of plants to prepare food and medicine have been realized through trial and error, and gradually human became able to meet his needs from his surroundings. Information about medicinal plants has long been transmitted gradually and from generation to generation, a human knowledge has gradually become complete with the formation of civilizations and the provision of more facilities. Medicinal plants are used as a medical resource in almost all cultures. Ensuring the safety, quality and effectiveness of medicinal plants and herbal drugs very recently became a key issue in industrialized and developing countries.

Keywords*: medicinal plant; natural plants*

SBSCP-06

TOPIC - RECENT ADVANCE AND PERSPECTIVES IN CANCER DRUG DESIGN

Sejal*[1], Vanshika[2]
Shaheed Bhagat Singh College of Pharmacy, Palampur
E-mail: sejalpatial15@gmail.com

ABSTRACT:

Cancer is one of the leading causes of death worldwide. With the increase in life expectancy, the number of cancer cases has reached unprecedented levels. In this scenario, the pharmaceutical industry has made significant investments in this therapeutic area. Despite these efforts, cancer drug research remains a remarkably challenging field, and therapeutic innovations have not yet achieved expected clinical results. However, the physiopathology of the disease is now better understood, and the discovery of novel molecular targets has refreshed the expectations of developing improved treatments. Several noteworthy advances
have been made, among which the development of targeted therapies is the most significant. Monoclonal antibodies and antibody-small molecule conjugates have emerged as a worthwhile approach to improve drug selectivity and reduce adverse effects, which are the main challenges in cancer drug discovery. This review will examine the current panorama of drug research and development (R&D) with emphasis on some of the major advances brought to clinical trials and to the market in the past five years. Breakthrough
discoveries will be highlighted along with the medicinal chemistry strategies used throughout the discovery process. In addition, this review will provide perspectives and updates on the discovery of novel molecular targets as well as drugs with innovative mechanisms of action.

Key words: *Cancer, targeted therapy, cytotoxic therapy, drug discovery.*

SBSCP-07

NIOSOMES: A NORMAL APPROACH IN MODERN DRUG DELIVERY SYSTEM

Thakur Sneha*[1], Garl Varsha[2], Sharma Shivangi[3]
Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
E-mail:shivangis074 @gmail.com

ABSTRACT:

Over the past several years treatment of infectious diseases and immunization has undergone a revolutionary shift. With the advancement of biotechnology and genetic engineering, not only have a large number of disease specific biological have been developed, but also emphasis has been made to effectively deliver these biological. Niosomes are vesicles composed of nonionic surfactants, which are biodegradable, relatively nontoxic, more stable inexpensive, an alternative to liposomes. This article reviews the current depending and widening of interest and its application in medicine.

Keywords: *Lamellar, Surfactants, Bilayer, Niosomes, Drug entrapment*

SBSCP-08

CURRENT TRENDS IN DRUG DEVELOPMENT

Reetika*[1], Sonal[2], Raj[3]
Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
E-mail:sonalbaniyal0@gmail.com

ABSTRACT:

The development of a new pharmaceutical is very time consuming, extremely costly and high risk, with very little chance of a successful outcome. The process of research and development is described, together with all its challenges, including environmental ones. The commercial realities and constraints of the business, together with its current problems, are discussed, followed by an exploration of some of the likely future commerical and technical development in the business, including the development of a greener pharmacy

SBSCP-09

DIGESTIVE SYSTEM AND ITS IMPORTANCE

Dikshu Verma[*1], Deepanshu[2]
Shaheed Bhagat Singh College of Pharmacy, Palampur (H.P)
E-mail:dikshuverma005@gmail.com

ABSTRACT:

The digestive system consists of the gastrointestinal tract and related organs, where the gastrointestinal tract includes the esophagus, stomach, and intestines, and the related organs are the mouth, liver, etc. The principal function of the digestive system is to digest food that is transported from the mouth to the anus. In contrast to a great number of studies on the cardiovascular fluid mechanics, there are quite a few studies on the digestive fluid mechanics. Some of digestive diseases, for example, dysphagia and functional dyspepsia, may be associated with flow in the gastrointestinal tract. In addition, gut flora is also related to the intestinal flow and transport. Here, we will show you the recent advancement of the digestive biomechanics, including "dynamics of swallowing," "gastric motility and flow in the stomach," and "transport phenomena of gut flora."

SBSCP-10

HOLI PLANT TULSI: A REVIEW

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ABSTRACT:

Tulsi (Ocimum Sanctum), holy basil, is indigenous to the Indian Mainkind and profoundly respected for its restorative uses inside the Clinical and Ayurvedic Framework. It belongs to family: Lamiacace ; Labiate. The essential oil of Fresh leaves from ocimum sanctum is found to contain: Eugenol, β Caryophyllene, β elemene and gamacrene D, as a major phytochemicals constitutients . Recently the

extract of ocimum sanctum has been established as a potent in radio protective activity. The review accounts for anthelmintic, antiaflatoxigenic, antibacterial, anticancer, antidepressants, antidiabetic, antifungal, antimetastatic, antimicrobial, antioxidant, antiprotozoal, anti-stress, antiviral, cardio protective, chemoprotective, immunomodulatory, noise stress release, renal damage recovery.

SBSCP-11

NEURONS: ANATOMY AND PHYSIOLOGY

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ABSTRACT:

A neural impulse is an electrochemical signal that is sent from neurons to other neurons, or to effectors, like muscles and glands that are controlled by neurons. Neural impulses are important because they allow neurons to communicate throughout the body. This controls bodily actions, from conscious movement like walking, to involuntary processes like digestion and breathing. Neural impulses also allow people to detect changes in their environment, such as temperature, or sights or sounds. Neural impulses also allow the brain to process all of this information and create thoughts and feelings. Neural impulses are conducted by neurons, the cells of the nervous system. Neurons are highly specialized cells of the nervous system.

Parts of the Nerve Cell

Dendrite- the branched protoplasmic extension of a nerve cell that receives electrical messages from other nerve cells and then passes electrical messages to the nerve cell body. Dendrite comes from the Latin word dendron, which means trees. Trees have branches, and the dendrite is the branched area of the nerve cell.

Nucleus- the membrane bound organelle that contains all the genetic material for the cell.

Soma- the body of the cell that is a non-processing portion of the cell that contains the nucleus.

Axon- the long slender projection of a nerve cell that carries electrical signals known as action potentials away from the cell body and to other nerve cells. Axons could be thought of as the cables that connect to a server or the internet, allowing different computers to communicate with each other.

Myelin Sheath- a lipid rich barrier on the outside of the axon that insulates the axon and increases the rate at which electrical signals can be sent. Electrical cords are also insulated, which prevents electrical leakage and damage from the outside environment, allowing the electrical signal to travel faster.

Axon Terminal- where the nerve fiber ends; this is the branched area of the nerve cell that conducts electrical impulses away from that cell and towards other cells to continue the electrical signal.

Airports and train stations have different terminals where a person stops to get off for their train or plane; the terminal is the end of the ride for an electrical signal in a particular nerve cell.

Keywords: *Cell body, Dendrites, Axon, Nucleus, Axon terminal.*

SBSCP-12

ADVANCEMENTS IN VIRTUAL CLINICAL TRIALS: REVOLUTIONIZING HEALTHCARE

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ABSTRACT:

Virtual clinical trials (VCTs) represent a transformative shift in the landscape of healthcare research, offering innovative methodologies to streamline drug development processes and enhance patient engagement.Traditional clinical trials often face challenges such as limited participant recruitment, logistical burdens, and high costs, prompting the exploration of virtual alternatives. This abstract explores recent advancements in VCTs and their implications for healthcare. One significant advancement in VCTs is the utilization of
telemedicine and remote monitoring technologies, enabling researchers to conduct trials without the need for physical site visits. Patients can participate from the comfort of their homes, reducing barriers to enrollment and enhancing participant diversity. Real-time monitoring of vital signs, medication adherence, and symptom progression through wearable devices and mobile applications ensures accurate data collection whileimproving patient convenience and compliance. Moreover, virtual platforms facilitate decentralized trial
management, allowing for efficient collaboration among researchers, sponsors, and regulatory agencies.Cloud-based systems streamline data management and analysis, accelerating decision-making processes and shortening trial durations. Artificial intelligence and machine learning algorithms are employed to analyze vast datasets, identifying trends, and predicting patient outcomes, thereby optimizing trial designs and personalized interventions. Furthermore, VCTs offer enhanced patient-centricity by prioritizing patient
preferences and experiences. Patient-reported outcomes are collected through digital surveys and electronic diaries, providing insights into treatment efficacy and quality of life. Virtual support networks and educational resources foster patient empowerment and retention throughout the trial duration. However, challenges persistin the widespread adoption of VCTs, including data privacy concerns, technological literacy disparities, andregulatory complexities. Addressing these issues requires interdisciplinary collaborations among researchers, clinicians, policymakers, and technology

developers. In conclusion, advancements in VCTs hold immense promise for revolutionizing healthcare research by improving accessibility, efficiency, and patient-centeredness. Embracing these innovations can propel the field towards a future where clinical trials are conducted more ethically, inclusively, and effectively, ultimately benefiting patients and advancing medical science.

Keywords: *Transformative, Logistical Burdens, Decentralized, Prioritizing, Interdisciplinary*

SBSCP-13

URINARY SYSTEM: A REVIEW

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ABSTRACT:

The urinary system is responsible for a variety of physiological processes, including osmoregulation, blood pressure and volume regulation, red blood cell production, calcium absorption, toxin metabolism, and excretion. The nephron is the functional unit of the kidney and is composed of the glomerulus and renal tubules. The products of the kidney include urine, the enzyme hormone renin, and the hormones erythropoietin and calcitriol, which is the active form of vitamin D. These common mammalian renal functions, as well as overall gross and histological structure, are similar between mice, rats, and humans. Species differences in renal physiology are reflected in the nephron ratio and number and also the morphology of vascular bundles, renal papillae, and medulla. Rodents, especially males, make highly concentrated urine with a high protein content. Sexual dimorphism may be present in both the rodent kidney. Ultrastructural differences also exist between rodents and humans. Renal size as well as responses to various drugs and compounds can differ significantly depending on rodent sex within and between strains. These potential differences must be considered during study design, interpretation of clinical data, and postmortem evaluations.

Keywords: Kidney, Ureters, Bladder and urethra, Inferior vena cava and Aorta

SBSCP-14

MEDICINAL IMPORTANCE OF NEEM

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ABSTRACT:

Azadirachta indica, commonly known as neem, has attracted worldwide prominence in recent years, owing to its wide range of medicinal properties. Neem has been extensively used in Ayurveda, Unani and Homocopathic medicine and has become a cynosure of modern medicine. Neem elaborates a vast array of biologically active compounds that are chemically diverse and structurally complex. More than 140 compounds have been isolated from different parts of neem. All parts of the neem tree-leaves, flowers, seeds, fruits, roots and bark have been used traditionally for the treatment of inflammation, infections, fever, skin diseases and dental disorders. The medicinal utilities have been described especially for neem leaf. Neem leaf and its constituents have been demonstrated to exhibit immunomodulatory, anti-inflammatory, antihyperglycaenic, antiulcer, antimalarial, antifungal, antibacterial, antiviral, antioxidant, antimutagenic and anticarcinogenic properties. This review summarises the wide range of pharmacological activities of neem leaf.

Keywords: *Azadirachta indica, neem, neem leaf, pharmacological activities, phytochemicals.*

SBSCP-15

VIRTUAL CLINICAL TRAILS IN PHARMACY PRACTICES: A REVIEW

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ABSTRACT:

Virtual clinical trial (vct) is a novel technique that are used to drive the clinical trial model. It was difficult to carry out a large scale virtual trial in the past, after the establishment of virtual clinical trial (vct) in the pharmaceutical companies it's easier to drive the trial's reports. To carrying out a clinical trial with the help of digitization vct is a new method that are used to approach the safety and efficacy of medical device. The wearable technology, mobile apps, videoconference etc are used in the virtual

clinical trial which interwined with patients and collection of data. These virtual clinical trials allows patients to get involved from home or be join at the local physician's office, without troubling any issue of visiting at the center. This can give the 30 times faster results. It helps to build up the satisfaction between patients and physicians, by enhancing the patient compliance. Vct can collaborate with multiple patients for short time which reduce work burden and save the research time. Vct is a cost effective, faster patient recruitment, and lower the clinical's cost.

pfizer held the first virtual clinical trial in 2011. Novartis by now held clinical trials for clusture headache, acne, and non-alcoholic steatohepatitis in collaboration with science 37. For 10 further virtual clinical trial programs in the tract of dermatology, neuroscience, and oncology novartis lengthened its collaboration with science 37. The endocrinology, cns, dermatology, respiratory, gastrointestinal, immunology, cardiovascular and rare diseases are those therapeutic areas that present the golden opportunities for a virtual approach.

Keywords: *- virtual clinical trial, pfizer's remote trial, traditional vs. Virtual clinical trial, technologies employed at various stages in virtual clinical trial.*

SBSCP-16

ADVANCING DRUG DEVELOPMENT: INSIGHTS FROM COMPUTER – AIDED DRUG DESIGN

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ABSTRACT

In the past, conventional drug discovery strategies have been successfully employed to develop new drugs, but more than 12 years and costs approximately $1.8 billion usd on average. Due to their potential to reduce the time, expense and labour associated with drug discovery, in silico techniques have garnered a great deal of attention lately. Through the use of computational techniques, numerous novel medicinal molecules have been effectively created. Drug discovery is seeing a steady rise in the use of computer-aided drug design (cadd) techniques, which are essential for economically viable identification of promising therapeutic candidates. The use of animal's models in pharmacological research should be minimized, and these computational techniques can help with the thoughtful design of new, safe medication candidates. Such models have seen frequent use in the discovery and

optimization of novel molecules with affinity to target, the clarification of absorption, distribution, metabolism, excretion and toxicity properties as well as physicochemical characterization. In this, we briefly introduce computational drug discovery strategies and outline up-to-date tools to perform in silico studies.

Keywords: in silico, drug design, adme, cadd, drug discovery.

SBSCP-17

NANO-FORMULATIONS: VARIOUS USAGES AND SAFETY ASPECTS

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ABSTRACT:

It has been noticed and experienced the urge of new validation methods to overview the health effects associated with nanoformulations. The applications and advancement of nano-formulations has very bright future scope and need to cure variouis disorders. These have been directly attracting the attention of researcher(s) to get more outcomes with nano-formulations. The biological effectivness of nanoparticles is because of wide spectrum of drug delivery option and penetrating the minute pore size to produce therapectic effects. The nanopartice drug discovery faciloitated the drug absorption profiles by overcoming various aspects related with pharmacokinetic and pharmacodynemic drug profile. The types of nanoparticles like polymer-based nanoparticles, solid nanoparticles, carbon-based nanoparticles and nanoemulsions has their own limitations. Therefore, while nanoparticle drug discovery processes researcher(s) should be limit the safe delivery procedures. Nano-formulations biophysical properties like size, shape, aggregation, surface modifications and charge can cause damage to dna through generation of reactive oxygen species (ros).

Keywords: *nanoformulations, routes of administration, health hazards, dna toxicity, ros.*

SBSCP-18

MEDICINAL PLANTS: FUTURE SOURCE OF NEW DRUG

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ABSTRACT

India has a long history and strong base for Ayurveda, which is the traditional herbal medical system. People have been using plants as a traditional medicine for thousand years ago. Plants have been associated with the development of human civilization around the whole world. However, plants are considered as rich sources of phytochemical ingredients which enable to have medicinal value. Medicinal plants are a potential source for the development of new herbal drugs. In the 21st century, the pharmacological effects of medicinal plants have been considered as a promising future drug/medicine for the management of healtcare. In recent years, there has been a resurgence of interest to rediscover medicinal plants as a source of potential drug candidate.Therefore, the aim of the present review is to understand the knowledge of the medicinal plants as a future source of herbal drugs.

Keywords: *medicinal plants, ayurveda, herbal medicine,phytochemicals, drug development*

SBSCP-19

CURRENT INSIGHTS ON PAPAVER SOMNIFERUM

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ABSTRACT:

The Papaveraceae family has numerous plants, but Papaver somniferum is the major medicinal plant of interest. The poppy is grown in tropical as well as temperate climates over a period of 6-7 months. It is a multipurpose plant with leaves and seeds that serve as an edible food source, while the latex of the poppy capsule is of great medicinal value. Alkaloids of the poppy are synthesized in the lactifer ous system of the plant and are found abundantly in capsules, compared with the rest of the plant. Morphinan alkaloid concentration varies from 20% to 30% in Papaver somniferum, while thebaine is s major slkaloid in Papaver Bracteatum Extraction co of opium by an excoriation of capsules is known for centuries and labor-intensive. Some peptides from non- poppy sources (Kratom, salvia) are also chemically related " to opium. Dry poppy capsules are now a major commercial source for opium globally.

Papaver somniferum is the source of several pharmaceutical benzylisoquinoline alkaloids including morphine, codeine, and sanguinarine.

Keywords: *Papaver somniferum, codeine, morphine,thebaine, alkaloids,kratom.*

SBSCP-20

CURRENT TRENDS IN DRUG DEVELOPMENT

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ABSTRACT:

Drug development comprises the entire procedure of recognizing a drug from its discovery phase until its launch to market. The main objective of this mini review is to highlight the utility of various recent trends in drug discovery and development. It includes recent trends like, identification of newer targets with their structural information, development of newer lead molecules through the concept of rational drug design, high-throughput screening, genomics, proteomics, as well as combinatorial chemistry approaches. The explosion of bioinformatics, cheminformatics, genomics, proteomics, and structural information has provided approximately hundreds of newer targets with advantages such as cost saving, time-to-market, in-sight knowledge of drug-receptor interactions and speed up drug discovery and development. On the other hand, recent analytical and computer technology developments have opened new avenues for processing complex natural products and using their structures to generate new and innovative drugs. In recent times, various biopharmaceutical products including novel vaccines, diagnostic devices, and new therapeutic strategies, are the achievements of biotechnology in the biomedical domain. Also, numerous bioactive derivatives of the marine source are now going through clinical trials for the treatment of various ailments such as cancer. The International Council for Harmonisation (ICH) has set benchmark by responding to the increasingly global face of drug development through developing guidelines and technical requirements for the development, approval and safety monitoring of medicines involving regulatory and industry experts.

Key words: *Drug discovery, Drug development, Bioinformatics, CADD*

SBSCP-21

REPURPOSING TRANSLATIONAL DRUGS TO ASSESS OUTSTANDING PRELIMINARY INTRACRANIAL HAEMORRHAGE INVESTIGATIONS

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ABSTRACT:

Intracerebral hemorrhage, which accounts for 49% of the 6.5 million yearly stroke- related deaths that are identical to ischemic stroke, is a catastrophic global health burden with limited treatment options. Because there are currently no viab le treatments for intracerebral hemorrhage, despite its devastating effects, vulnerabilities in the translational pipeline need to be addressed. Numerous preclinical research in intracerebral hemorrhage models have yielded promising results for prospective in vivo therapeutics; however, these studies have not translated into successful clinical application, nor have they advanced our understanding of the biology of intracerebral hemorrhage. Effective translation requires the utilization of various models, multidisciplinary preclinical research, and human tissue validation. The most promising tactic to lessen the impact of intracerebral hemorrhage on world health may be the repurposing of medications for the condition. Here, we have examined the body of research to identify repurposable medications that have demonstrated efficacy in preclinical models of intracerebral hemorrhage and that have a reasonable chance of being developed into intracerebral hemorrhage treatments in clinical settings.

Keywords: *Repurposing, translation, intracerebral hemorrhage, drug trials.*

SBSCP-22

EXPLORING POTENTIAL TARGETS OF NOONAN SYNDOME

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ABSTRACT:

Short stature, characteristic facial dysmorphology, and congenital cardiac abnormalities are the hallmarks of Noonan Syndrome (NS). According to estimates, the incidence of NS ranges from 1:1000 to 1:2500 live births. The primary characteristics of NS's face are low-set, posteriorly rotated ears with a thicker helix, ptosis, and hypertelorism with down slanting palpebral fissures. The two cardiovascular abnormalities that are most frequently linked to this illness are hypertrophic cardiomyopathy and pulmonary stenosis. Webbed neck, chest deformity, cryptorchidism, and minor intellectual disability, poor feeding during infancy, bleeding tendency, and lymphatic dysplasias are further related symptoms. Autosomal dominant trait transmission is how the syndrome is passed down. Tyrosine phosphatase SHP- 2, a non-receptor protein, gains function due to missense mutations in the PTPN11 gene on chromosome 12 in around half of the cases of the disease. Recently, a tiny percentage of patients with NS have been shown to have mutations in the KRAS gene. It is possible to do a DNA test for mutation analysis on samples of amniotic fluid, blood, and chorionic villi. All foetuses with poly hydramnion, pleural effusions, oedema, and elevated nuchal fluid with a normal karyotype should be evaluated for NS. Most children with NS will grow up and function normally in the adult world if they receive particular attention and counselling. Early childhood nutrition issues, heart function testing, and growth and motor development assessments should all be part of management. If necessary, speech therapy and/or physical treatment should be provided. During the first few years of education, a thorough examination of the ears and eyes should be conducted. It is recommended to do preoperative coagulation testing. As people age, their signs and symptoms diminish, and most adults with NS don' t need specialized medical attention.

SBSCP-23

IMPROVEMENT OF ORAL BIOAVAILABILITY OF POOR WATER SOLUBLE DRUGS BY SOLID DISPERSION

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ABSTRACT:

Solubility behavior is the most challenging aspect for various new chemical entities as 40% of the new potential products possess solubility problems. This is the biggest reason for new drug molecules not reaching to the market or not reaches to full potential. There are various techniques to enhance the drug solubility such as particle size reduction, nanosuspension, use of surfactants, salt formation and solid dispersion etc. This is intended to combine recent literature on solid dispersion technology for solubility enhancement with special emphasis on mechanism responsible for solubility improvement by solid dispersion, various preparation methods and evaluation parameters. Various advantages of solid dispersions includes as it reduce particle size, improve wettability and dissolvability in water, mask the taste of drug substances, improve porosity and decrease crystalline structure of drug in to amorphous form. Solid dispersion of drug generally produced by solvent evaporation and hot melt methods. The material which is usually waxy or semisolid in nature, harden by cooling to very low temperature. They were then pulverized, sieved, mixed with suitable excipients compressed into tablets or encapsulated into hard gelatin capsules. Other preparation methods includes melting solvent method, lyophilisation method, spray drying, electrostatic spinning method, inclusion complexes, and supercritical fluid process etc. Evaluation parameters for solid dispersion are estimation of drug content and moisture content, phase solubility study, dissolution study, powder X-ray diffraction, microscopy study, stability study and interaction study. Interaction study includes thermal data analysis and Fourier Transform Infrared study (FT-IR). From this it may be concluded that solid dispersion is an important approach for improvement of bioavailability of poor water soluble drugs.

SBSCP-24

THE STUDY INVESTIGATES THE PHYTOCHEMISTRY, NOVEL APPLICATIONS, AND POSSIBLE HEALTH ADVANTAGES OF STEVIA REBAUDIANA BERTONI.

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ABSTRACT:

Stevia rebaudiana, a plant native to Argentina, Brazil, and Paraguay, is a sweetener with various health benefits. Its chemical components include isosteviol, steviolbioside, and rebaudioside, which are calorie-free and sweeter than sucrose. Steviol glycosides, used in food, beverages, and nutraceuticals, are economically valuable and delicious. Stevia has various extraction methods, phytochemistry, and commercial uses, including beverages, baked foods, dairy products, and sweets. Studies show potential health benefits against various diseases, including antibacterial, anti-obesity, anti-carcinogenic, anti-oxidant, anti-hypertensive, and anti-diabetic properties. Clinical studies have shown that steviol glycosides are safe for human consumption without any harmful effects. This research may provide a different perspective on stevia's potential to treat human illnesses and advance the development of innovative stevia-based products.

Keywords- *Clinical Research, Wholesome Meals, Dietary Supplements, And Natural Sweeteners, Among Other Benefits.*

SBSCP-25

DIGITAL HEALTH TECHNOLOGIES

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ABSTRACT:

Digital health technology is becoming an increasingly integral part of the drug development process, particularly in virtual clinical trials and remote patient monitoring. Advanced technology in digital health has produced several innovations, including wearable devices, mobile health apps, and telemedicine. Many people already use digital health technology as part of their daily lives, whether it be for tracking fitness or monitoring sleep.

The global digital health market is set to exceed 650 billion dollars by 2025, and many experts recognise its potential to improve patient care and enhance drug development. The pharma industry recognises the opportunities digital health technologies offer and how they can be used to collect accurate, real-time personal health data and develop personalised medicine.

While digital health technology has countless benefits, there are a number of drawbacks that drug companies must consider. Ethical dilemmas regarding where electronic health records and personal data will be stored are a genuine concern for patients and researchers alike, and some patients may have trouble using technology in general. Despite these challenges, the rise of digital health technology is a trend that is likely to continue for the foreseeable.

Keywords: telemedicine, clinical trials, digital health, mobile health apps.