Achievements of Faculty Members

Academic Year	**2024-25**
Number of Research papers published in Journals*	**32**
Number of patents granted*	**05**
Number of papers published in National Conferences*	**-**
Number of papers published in International Conferences*	**-**
Number of Books Authored *	**02**
Number of book chapters authored*	**-**
Number of new externally funded research projects received	**-**
Fund received during this academic year*	**-**

Integrating Herbal Medicine with Transdermal Technology: A Comprehensive Review

Saurabh Balu Betalse[1], Snehal Anil Bhosale[2], Jyoti Bhimraj Bhujade[3], Dr. Vandana Patil[4]
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***Abstract*—A safe, non-invasive, and patient-friendly substitute for traditional administration methods is provided by herbal transdermal patches, an innovative drug-delivery technique. By avoiding hepatic first-pass metabolism and minimizing gastrointestinal adverse effects, these systems transport phytoconstituents straight through the epidermis into the systemic circulation. In order to maintain controlled, sustained release, a conventional herbal patch is made up of a polymeric matrix, drug reservoir, adhesives, permeability enhancers, and a protective backing layer. Lipid content, blood flow, moisture, pH, and the molecular properties of the herbal medication are among the physicochemical parameters that affect drug transport across the skin via transcellular, intercellular, or appendageal pathways. Although there are some drawbacks such skin irritation, inconsistent permeability, and expensive formulation costs, transdermal patches have many benefits like increased bioavailability, consistent plasma levels, convenience of administration, and extended shelf life. Pain relief, anxiety, sleeplessness, inflammation, asthma, and quitting smoking are among the uses. Quality and efficacy are guaranteed by thorough examination, which includes thickness, folding endurance, medication content, moisture analysis, in-vitro diffusion, and stability investigations. Herbal transdermal patches have great promise for future therapeutic innovation given the rising demand for natural medicines.**

***Index Terms*—Herbal transdermal patches; Components; Skin permeation; Application; and Future aspects.**

I. INTRODUCTION

A transdermal patch is a medicated patch that can administer medication at a predetermined rate through the skin's layers and straight into the bloodstream. The goal of any drug delivery system is to deliver a therapeutic dose of medication to the right location in the body while maintaining the appropriate level of drug concentration. In order to maintain optimum plasma drug levels for therapeutic efficacy, these systems deliver the drug at the proper rates. Transdermal patch provides constant blood levels, by first pass metabolism, improve patient compliance, and reduce dose dumping. This approach can prevent drug-related side effects, such as stomach discomfort. For transdermal distribution, the medication should have a small molecular size, good solubility in the carrier, short half-life, low dose, and appropriate lipophilicity.[1-5]

1.1 Herbal Transdermal Patch: -

The drug should be delivered at a rate that aligns with the body's needs during the therapy term. Secondly, it should direct the active ingredient of herbal drug to the site of action. This system is known as herbal transdermal drug delivery system. When applied to intact skin, herbal transdermal drug delivery systems (Herbal patches) are self-contained, discrete dose forms intended to administer the medication via the skin at a regulated pace of systemic circulation. A number of benefits make herbal transdermal drug delivery systems attractive, including the ability to administer medications continuously, the avoidance of minimal intestinal irritation, and the avoidance of the inconsistent absorption and metabolic breakdown linked to oral treatments. They have a number of benefits over traditional formulations, including improved drug bioavailability, fewer systemic side effects, steady state drug levels, less frequent dosing, a simpler patient dosage schedule, and less variability in plasma drug levels. Maintaining a high drug concentration within the patch is essential for transdermal drug delivery because it produces a concentration gradient that promotes skin diffusion and guarantees a steady plasma drug level.[6-10]

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Review Article

Next-Generation Nanorobots: Intelligent Systems for Medicine and Beyond

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Nanotechnology, nanorobots, artificial intelligence, biohybrid systems, swarm robotics, nanofabrication, targeted drug delivery, and biomedical applications
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ABSTRACT

One of the most revolutionary areas of contemporary science is nanorobotics, which combines the concepts of artificial intelligence, robotics, materials science, and nanotechnology. Because of their potential uses in advanced manufacturing, environmental management, and medicine, nanorobots—nanoscale devices with the ability to sense, move, and perform precise tasks—have drawn a lot of attention. The design concepts, manufacturing techniques, and operational mechanisms that facilitate nanorobotic performance are examined in this paper, with a focus on propulsion systems, control schemes, and biocompatible materials. Particular attention is paid to biomedical applications where nanorobots exhibit previously unheard-of cellular accuracy, including targeted medication delivery, cancer therapy, microsurgery, and tissue repair. Nanorobots have potential uses in defense, environmental control, and nanoscale assembly in addition to healthcare. Large-scale deployment is still hampered by a number of technical, legal, and moral issues, from energy economy and in vivo navigation to biosafety and standards. To improve flexibility and autonomy, future advancements are anticipated to make use of biohybrid systems, swarm coordination, and artificial intelligence. Nanorobotics has the potential to revolutionize the fields of intelligent systems, industry, and health by fusing interdisciplinary creativity with responsible governance. This will enable the advancement of concepts into useful, real-world solutions.

INTRODUCTION

The development of nanotechnology over the last few decades has created amazing opportunities for atomic and molecular-scale matter manipulation (1). The advent of nanorobots, which are tiny objects made to carry out precise, controlled activities in microscopic surroundings, is one of its most fascinating breakthroughs (2). These objects, which frequently function in the range of 1 to 100

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A Review of the Anti-Ulcer Activity of *Carica papaya* Linn.

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Student, Student, Student, Assistant professor

Bachelor of Pharmacy

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Abstract

Traditional medicine has traditionally utilized the tropical plant Carica papaya Linn. (papaya), which is widely grown for its fruit and medicinal properties, to treat gastrointestinal conditions, including peptic ulcer disease (PUD). Its phytochemical components, modes of action, and pharmacological research are highlighted in this review, which compiles the most recent scientific data on its anti-ulcer qualities. Bioactive substances such papain, chymopapain, flavonoids, phenolic acids, saponins, carotenoids, and alkaloids are found in the plant's latex, leaves, seeds, and fruit. Through a variety of mechanisms, such as antioxidant and free radical scavenging activity, increased mucus secretion and cytoprotection, anti-inflammatory effects, and decreased aggressive factors like Helicobacter pylori activity and gastric acid secretion, these constituents work in concert to provide gastroprotection. Following therapy with C. papaya extracts, in vivo investigations employing various ulcer models have consistently shown significant decreases in ulcer indices and mucosal damage. These results support the traditional use of carica papaya and point to it as a potential natural source of anti-ulcer chemicals that are both safe and efficacious. To identify the strongest drugs, clarify their molecular targets, and validate therapeutic efficacy in people, more clinical trials are required.

Keywords: Carica papaya, gastroprotective, anti-ulcer, papain, anti-oxidant

1. Introduction

The tropical fruit tree Carica papaya Linn., also called papaya, is a member of the Caricaceae family and is grown extensively in tropical and subtropical areas for both its tasty fruit and its noteworthy therapeutic qualities. 1 Many plant parts, including the ripe and unripe fruit, seeds, leaves, and latex, have been widely used in traditional medical systems, such as Ayurveda and folk medicine, to treat a wide range of illnesses, especially digestive disorders like ulcers 2

Mucosal erosions that pierce the muscularis mucosae in the stomach (gastric ulcer), small intestine (duodenal ulcer), or esophagus are the hallmark of Peptic Ulcer Disease (PUD), a common gastrointestinal disorder. An imbalance between aggressive (like gastric acid, pepsin, Helicobacter pylori infection, and non-steroidal anti-inflammatory drugs, or NSAIDs) and defensive (like the mucus-bicarbonate barrier, mucosal blood flow, and prostaglandins) factors is the main cause of PUD pathogenesis . Exploration of natural, safer, and more effective anti-ulcer agents from medicinal plants like Carica papaya has attracted a lot of scientific attention due to the drawbacks and adverse effects of synthetic anti-ulcer medications 3

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An International Open Access, Peer-reviewed, Refereed Journal

An Ayurvedic And Modern Overview Of Carica Papaya As An Anti-Ulcer Agent-A Review Article

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ABSTRACT: Papaya, scientifically known as Carica papaya is a member of family caricaceae.Papaya is a tropical plant which is being used in various ayurvedic formulations since ancient times and also shows commercial importance because of it's high nutritive and medicnal value.Papaya plant extracts has been found to show various functions like anti-inflammatory, antioxidant, diuretic antibacterial, vermifuse, abortifacient, hypoglycaemic, antihelminthic, and immunomodulatory etc.

Ulcers are basically the open sores that can develop on the lining of the stomach, small intestine or oesophagus. Anti-Ulcer activity refers to the mechanism or substances that prevent or heal ulcers in the GI tract. Various drugs and natural compounds exerts anti-ulcer effect by different mechanisms. Carica papaya has been explored for its potential anti ulcer properties due to its rich nutritional profile & bioactive compounds. Carica papaya contains various enzymes in its different parts like fruits, leaves, roots, latex etc. which are pharmacologically active in nature. So, this review enlightens the various pharmacological actions shown against ulcer conditions and mechanisms by which it has been found to be effective against ulcers.

KEY WORDS : Carica papaya , gastroprotective , anti-ulcer , papain , anti-oxidant

1. INTRODUCTION:

Carica papaya, commonly known as papaya, is a tropical fruit that has been recognized for its medicinal values from centuries. Both in historical practices and in Ayurvedic medicine, papaya has been widely used to treat various diseases, including ulcers. Different parts of papaya , such as the seeds, leaves, and latex, have been utilized for their healing properties in treating ulcers. Carica papaya has been evaluated for its gastroprotective and healing effects of the methanolic extract of the seed of the papaya Carica papaya L. in rats[(4)]

The latex of the unripe papaya fruit extract has been found to contain proteolytic enzymes, such as papain, which has been traditionally well known for their wound-healing properties. The presence of papain in papaya latex allows effective breakdown of dietary proteins, which may improve nutrient absorption and digestive efficiency.[(7)]

Historical Uses of Carica Papaya for Ulcers

Historically, Carica papaya has been used in traditional medicine systems across various cultures for its therapeutic properties. In folk medicine, the use of papaya was not only limited to treating digestive issues but also extended to treating ulcers. The unripe fruit, seeds, and leaves were commonly used in poultices and herbal concoctions to treat external and internal ulcers.[(6)]

Integrating Herbal Medicine with Transdermal Technology: A Comprehensive Review

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doi.org/10.64643/IJIRTV12I6-187488-459

***Abstract*—A safe, non-invasive, and patient-friendly substitute for traditional administration methods is provided by herbal transdermal patches, an innovative drug-delivery technique. By avoiding hepatic first-pass metabolism and minimizing gastrointestinal adverse effects, these systems transport phytoconstituents straight through the epidermis into the systemic circulation. In order to maintain controlled, sustained release, a conventional herbal patch is made up of a polymeric matrix, drug reservoir, adhesives, permeability enhancers, and a protective backing layer. Lipid content, blood flow, moisture, pH, and the molecular properties of the herbal medication are among the physicochemical parameters that affect drug transport across the skin via transcellular, intercellular, or appendageal pathways. Although there are some drawbacks such skin irritation, inconsistent permeability, and expensive formulation costs, transdermal patches have many benefits like increased bioavailability, consistent plasma levels, convenience of administration, and extended shelf life. Pain relief, anxiety, sleeplessness, inflammation, asthma, and quitting smoking are among the uses. Quality and efficacy are guaranteed by thorough examination, which includes thickness, folding endurance, medication content, moisture analysis, in-vitro diffusion, and stability investigations. Herbal transdermal patches have great promise for future therapeutic innovation given the rising demand for natural medicines.**

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Review Article

Advanced Formulation Strategies for Diabetic Foot Ulcers: Bridging Current Market Therapies with Future Drug Delivery Platforms

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ABSTRACT

Diabetic foot ulcers (DFUs) are a prevalent and debilitating complication of diabetes, affecting 15–25% of patients and posing significant clinical and economic burdens. Conventional wound care strategies—including hydrocolloids, foams, antimicrobial dressings, growth factor therapies, and bioengineered skin substitutes—offer partial relief but remain limited by low healing rates, infection control challenges, high costs, and poor patient adherence. Emerging next-generation formulation technologies provide promising solutions to these limitations. Nanotechnology-based carriers, stimuli-responsive hydrogels, electrospun nanofibrous scaffolds, stem cell-derived exosomes, smart sensor-integrated dressings, and 3D-printed scaffolds enable targeted, sustained, and multifunctional therapeutic delivery, addressing infection, oxidative stress, hypoxia, and impaired tissue regeneration. Integration of herbal and polyherbal nanocarriers further expands options for cost-effective and natural adjunctive therapies. This review comprehensively evaluates the market landscape, current limitations, and future perspectives of DFU management, emphasising translational relevance. The convergence of biomaterials engineering, advanced drug delivery, and biosensing technologies holds transformative potential to improve healing outcomes, reduce healthcare costs, and advance personalised DFU care.

INTRODUCTION

1.1 Prevalence and Incidence:

The global prevalence of diabetic foot ulcers (DFUs) is approximately 6.3%, with regional variability. For instance, studies have reported a prevalence of 13% in North America, 7.2% in Africa, and 5.1% in Europe (Zhang et al., 2017; Almobarak et al., 2017). The annual incidence of DFUs ranges from 1.0% to 4.1%, influenced by factors such as diabetes type, duration, and comorbidities (Singh et al., 2005).

1.2 Clinical Outcomes:

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QbD based Analytical Method Development and Validation of Solifenacin Succinate by using UV and RP-HPLC in Bulk and Tablet Dosage Form

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Abstract

Background: Quality by design (QbD) refers to the achievement of certain predictable quality with desired and predetermined specifications. A quality-by-design approach to method development can potentially lead to a more robust/rugged method due to emphasis on risk assessment and management than traditional or conventional approach. An important component of the QbD is the understanding of dependent variables, various factors, and their interaction effects by a desired set of experiments on the responses to be analyzed. The present study describes the risk based HPLC method development and validation of solifenacin succinate in pharmaceutical dosage form.

Results: An efficient experimental design based on Box Behnkhen design of two key components of the RPHPLC method (mobile phase, flow rate and wavelength) is presented. The chromatographic conditions were optimized with the Design Expert software 13.0 version, i.e., C18 column (250mm × 4.6 mm, 5.0 µ), mobile phase composed of 0.01 M Phosphate Buffer (adjusted pH 4 with Orth phosphoric acid)–acetonitrile–methanol (40:30:30, v/v/v) and the flow rate was 1 ml/min with retention time 4.16 min. . The developed method was found to be linear with r2 = 0. .9974 for range of 100–500 µg/ml at 262 nm detection wavelength The system suitability test parameters, tailing factor and theoretical plates, were found to be 1.07 and 1939. The % RSD for intraday and inter day precision was found to be 0.67–1.33 and 0.86– 0.32respectively.The robustness values were less than 2%. The assay was found to be 101.42%. The validation is done according to International Conference on Harmonization (ICH) requirements.

Conclusion: The Box Behkhen experimental design describes the interrelationships of mobile phase,Flow rate and wavelengths at three different level and responses to be observed were retention time, tailing factor, and peak asymmetry with the help of the Design Expert 13.0 version. Here, a better understanding of the factors that influence chromatographic separation with greater confidence in the ability of the developed HPLC method to meet their intended purposes is done. The QbD approach to analytical method development was used for better understanding of method variables with different levels.

Keywords: Quality by design, HPLC, Solifenacin succinate, Box-Behnkhen design

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Regulations, disease management and challenges in veterinary medicine

Rana Zainuddin and Devina Gaike

Abstract
Background: The veterinary pharmaceutical industry plays a crucial role in maintaining animal health and mitigating the economic impact of livestock diseases. Livestock also have serious implications on global food security. Understanding regulatory guidelines will assist countries to enhance global cooperation and address emerging challenges in animal health and welfare effectively.
Main body: Understanding the regulatory framework is essential for stakeholders involved in the development, approval, and monitoring of veterinary drugs, particularly in light of increasing incidences of livestock diseases such as foot and mouth disease, *salmonellosis*, and I.B.D by adhering to harmonized regulatory standards, countries can enhance global cooperation and address emerging challenges in animal health and welfare effectively. However, a drawback of increasing use of veterinary medicine is leading to hazards related to accumulation of drug residues, which is a big problem especially in livestock meant for human consumption. Potential health risks posed by these residues, their detection techniques are discussed. Recent veterinary drug approvals are also summarized, along with the available products in the market. Additionally, the paper delves into FDA regulations for veterinary feed and considerations in disease management.
Conclusion: This review discusses the regulatory frame work for veterinary pharmaceuticals overseen by regulatory bodies such as the CDSCO in India, EMA in the Europe and the FDA in the United States. Popular veterinary formulation is highlighted. Advanced techniques are discussed for diagnosing, treatment and prevention of animal diseases. On the contrary, increased use of veterinary drugs leads to residual accumulation, which poses a health threat for human consumption of livestock. Common drug residues and detection methods are also summarized. Sustainable methods for disease management are the need of the hour and there is scope for innovations in veterinary medicine.

Keywords: Veterinary drug approval, drug residue and detection, technological advances

1. Introduction

The veterinary pharmaceutical industry is at the forefront of protecting animal health, maintaining livestock wellbeing, and reducing the economic effect of diseases that affect these animals. Livestock diseases not only affect animal welfare, but they also have serious implications for global food security and human health. Drug residues in animal food products, by-products and drugs/excipients extracted from animals affect the human population. To address these issues effectively, a strong regulatory framework is required to ensure the quality, safety, and efficacy of veterinary drugs. Regulatory bodies such as the CDSCO in India [1] the EMA in Europe, and the FDA in the United States [2] play a pivotal role in overseeing the approval and monitoring of veterinary pharmaceuticals.

Rise in incidences of diseases in animals and a realization of its effect on mankind and environment, at large, has prompted us to provide a one-shot review of the regulatory landscape surrounding veterinary pharmaceuticals. Researchers, pharmaceutical companies, environmentalists can benefit from this review by gaining insights into the regulatory frameworks and requirements in key regions. Additionally, veterinarians and animal health professionals are informed about the regulatory processes governing veterinary drugs. This review further gives insights on animal residues, detection and innovations in animal drug products.

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Herbal Cream and Ointment Formulation for the Management of Vitiligo

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B Pharmacy Student, Assistant Professor, Dept Of Pharmacology Principal

Dr.Babasaheb Ambedkar Marathwada University

Abstract

Vitiligo is an acquired depigmenting disorder characterized by loss of functional melanocytes, producing cosmetically distressing white macules. Conventional therapies (topical corticosteroids, calcineurin inhibitors, phototherapy, PUVA) have variable efficacy and safety concerns; therefore herbal and natural agents with antioxidant, melanogenic,
immunomodulatory, and photosensitizing properties have been investigated as alternatives or adjuvants. This article reviews the evidence for several botanicals (Psoralea corylifolia, khellin, Ginkgo biloba, Aloe vera, green tea polyphenols/EGCG, Polypodium leucotomos and others), and proposes practical topical cream and ointment prototypes, manufacturing steps, qualitycontrol tests and stability/packaging considerations for herbal semisolid products intended for vitiligo management. Regulatory and safety considerations are discussed. Clinical and preclinical evidence supports selected herbal actives as candidates for topical formulations, but wellcontrolled large randomized trials and standardized extract specifications remain required before wide clinical adoption.

To overcome these limitations, herbal formulations have emerged as potential therapeutic alternatives. Herbal creams and ointments provide a localized and controlled release of active constituents that enhance melanocyte regeneration, stimulate melanin synthesis, and protect the skin from oxidative damage. Medicinal plants like Psoralea corylifolia, Wrightia tinctoria, Aloe vera, and Curcuma longa have shown significant melanogenic and antioxidant activity.

Keywords: Vitiligo, herbal cream, ointment, Psoralea corylifolia, melanogenesis, repigmentation, antioxidants.

Rationale & Objectives

The rationale for developing herbal creams/ointments for vitiligo includes:

Melanocyte stimulation & melanogenesis: Certain herbs contain agents that enhance tyrosinase activity (the key enzyme in melanin synthesis) or increase melanocyte proliferation/migration into depigmented areas.

Antioxidant protection: Oxidative stress is a major contributing factor in melanocyte damage in vitiligo. Herbal antioxidants can protect melanocytes and the surrounding microenvironment.

Immunomodulation and anti-inflammation: Since autoimmune attack on melanocytes plays a role, herbs that modulate immune responses or reduce local inflammation may be beneficial.

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Review Article

Heat Sensitive Magic: Unveiling Thermochromic Substances in Pharmacy

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Thermochromic materials, temperature sensitivity, chromogenic materials, Leucodyes, Pharmaceutical applications
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ABSTRACT

Thermochromic substances are materials that change it's colour when there is change in external stimuli like temperature or excessive heat1, this unique property can be used for transport and packaging of pharmaceuticals2 . Thermochromic substances are type of chromogenic materials1 , This system can be used for temperature sensitive drugs and pharmaceutical materials that need suitable environmental conditions for storage and transport6, In pharmaceutical market use of this materials are increasing as it can be cost effective to use and easily detectable, this review focuses on Introduction of Thermochromic substances it's system, pharmaceutical growth of this substances, Applications in varies field, future trends and challenges in pharmaceuticals market14.

INTRODUCTION

1.1 Chromogenic Materials:

Chromogenic materials are the materials that undergone changes in there molecular structure, appearance, colour, bonding as well as optical activities when external stimuli apply to them1

They classified based on their response to external stimuli:

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"From Peel to Potion: Exploring Banana Waste as a Natural Beauty Resource"

Amruta Patwardhan[1], Diksha Patare[1], Komal Pawar[1], Abhishek Pawar[1],

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[3]Principal, Yash Institute of Pharmacy, Aurangabad, Maharashtra, India

ABSTRACT :

Banana peel is known as underutilized agricultural waste , but it holds a remarkable potential in health benefits mainly in cosmetic industry due to its rich bioactive compositions . it contain chemical constituents like polyphenols , flavonoids , carotenoids and vitamins that exhibit various activity like polyphenols , flavonoids for antioxidant activity , vitamins to promote skin health , minerals and fiber for keeping skin hydration and moisture .This review mainly focuses on exploring cosmetic potential of banana peel .It focuses on Utilizing agro waste in cosmetics and skin care , it focuses on potential of banana peel in skin health , Botnical and geographical profile of banana and composition of banana peel . it further highlights on formulations and there benefits, challenges and future prospectives in utilizing banana peel as natural cosmetic . This article also emphasizes its sustainable value in converting agro -waste into eco friendly cosmetic ingredients , reducing enviromental pollution and production cost . By blending traditional knowledge with modern research , this review aims to inspire innovation in natural cosmetics using banana peel as promising green resource .

KEY WORDS : Banana peel , Agro-waste , Cosmetic potential , Herbal formulations , Skin whitning , Healthy , Natural , Cosmetic potential

1. INTRODUCTION

OVERVIEW OF INCREASING DEMAND FOR HERBAL AND SUSTAINABLE COSMETICS :

Customers' demand for products that are both delicate and effective has led to a recent spike in interest in natural and sustainable ingredients in the skincare sector. Banana peel extract is one of these products that has shown great promise, providing a multitude of bioactive chemicals that may be beneficial to skin health. The context for a thorough analysis of the possible benefits of banana peel extract in skincare products is established by this introduction. It highlights the growing need for natural substitutes in skincare products and presents banana peel extract as a cutting-edge component with a variety of skincare advantages. It also describes the format of the review, which will explore the many bioactive ingredients in banana peel extract and how they affect the skin. It also stresses the necessity of investigating the mechanisms of action of banana peel extract and the need for future research to fully realise its potential in skincare applications. The overall goal of this introduction is to set the scene for the discussion that follows regarding the potential advantages of banana peel extract in supporting skin that is healthier and more vibrant. 1 The number of

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Original Article

Neem Oil Nanoemulsion

Diksha Patare*, Amruta Parwardhan, Abhishek Pawar, Komal Pawar, Pooja Karpe, Dr. Sachidanand Angdi

Yash institute of pharmacy

ABSTRACT

Neem oil, extracted from the seeds of Azadirachta indica (family Meliaceae), is renowned for its wide range of bioactivities, including insecticidal, antibacterial, antifungal, antiviral, antioxidant, and anti-inflammatory properties. However, its poor water solubility, susceptibility to oxidation, and instability under light and temperature restrict its direct use in pharmaceutical, agricultural, and cosmetic applications. Nanoemulsion technology has emerged as an effective strategy to overcome these challenges by encapsulating neem oil within nanosized droplets (typically 20–200 nm), thereby enhancing its solubility, bioavailability, stability, and controlled release. Neem oil Nanoemulsion (NEs) are generally prepared using high-energy (ultrasonication, high-pressure homogenization) or low-energy (phase inversion, spontaneous emulsification) methods with biocompatible surfactants and co-surfactants. Numerous studies have reported improved larvicidal, pesticidal, and antimicrobial activities of neem oil NEs compared to bulk formulations, owing to increased surface area, better wetting, and deeper penetration into biological membranes. Furthermore, recent advances focus on green surfactants, solid nanoemulsion gels, and polymer-based delivery systems for sustained efficacy and reduced toxicity. This review critically discusses the formulation strategies, characterization techniques, biological applications, and future prospects of neem oil nanoemulsions, highlighting their potential as eco-friendly and multifunctional nanocarriers for sustainable agriculture and biomedicine.

Keywords: Neem oil; Azadirachta indica; Nanoemulsion; Green nanotechnology; Biopesticide; Antimicrobial; Larvicidal activity; Drug delivery; Stability; Controlled release

INTRODUCTION

Neem oil contains several bioactive compounds — the most-studied being azadirachtin, nimbin, salannin and other limonoids — that exhibit insect growth regulatory, repellent and antimicrobial effects. However, neem oil is hydrophobic, prone to oxidation and photodegradation, and difficult to apply uniformly in aqueous environments[1]. Converting neem oil into oil-in-water nanoemulsions (droplet diameters typically <200 nm for many NEs; some reports show ~30–100 nm) overcomes these limitations by increasing surface area, improving spreading/wetting on target surfaces and enhancing penetration and bioavailability of active constituents[2]. Several studies and reviews have reported markedly improved larvicidal, antimicrobial and pesticidal performance for neem oil nanoemulsions compared to bulk oil preparations [3] Neem (Azadirachta indica A. Juss.), belonging to the family Meliaceae, is one of the most valuable medicinal plants native to the Indian subcontinent. It has been referred to as the "Village Pharmacy" due to its wide range of therapeutic and agricultural applications. Every part of the neem tree—leaves, seeds, bark, flowers, fruits, and roots—contains bioactive compounds with potent antibacterial, antifungal, antiviral, anti-inflammatory, antioxidant, and insecticidal properties[4].

Comprehensive Review on Astaxanthin – Sources, Chemistry, Pharmacological Activities, Formulation Strategies, and Therapeutic Applications with marketed formulations:

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***Abstract*—The wide range of health benefits and variety of Pharacological activities of carotenoids have made them the focal point of industrial as well as academic research on a global scale. Astaxanthin, a xanthophyll carotenoid renowned for its exceptional antioxidant potency, has attracted widespread scientific and pharmaceutical interest due to its diverse therapeutic activities. This review provides a comprehensive overview of astaxanthin, beginning with its natural and synthetic sources, structural chemistry, and physicochemical properties that influence its biological behavior. The pharmacological profile of astaxanthin including its antioxidant, anti-inflammatory, cardioprotective, neuroprotective, hepatoprotective, ocular, and anticancer effects is critically examined. Special emphasis is placed on advanced formulation strategies such as nanoemulsions, liposomes, polymeric nanoparticles, nanostructured lipid carriers, and microencapsulation systems, which have been developed to overcome astaxanthin's inherent limitations related to poor aqueous solubility, instability, and low bioavailability. Furthermore, the review highlights recent progress in therapeutic applications, preclinical and clinical findings, and commercially available astaxanthin formulations currently marketed for health and wellness. Overall, this work consolidates current knowledge while identifying key research gaps, offering guidance for future development of astaxanthin-based nutraceuticals and pharmaceutical products.**

***Index Terms*—Astaxanthin, ROS. Photoprotection, Antioxidant, Beta carotene.**

I. INTRODUCTION

Astaxanthin (AXT) a non-vitamin A and a red-orange carotenoid is a member of the xanthophyll family as it contains oxygen with carbon and hydrogen atoms. It is safe for use and hence classified as "pure anti-oxidants" Astaxanthin is a xanthophyll carotenoid which is found in various microorganisms and marine animals[1].The natural astaxanthin are found more biological and pharmacological actives than synthesis one. It is more active as an anti-oxidant than canthaxanthin, zeaxanthin, lutein, vitamin C, vitamin E and β-carotene[4].The United States Food and Drug Administration (USFDA) has approved the use of astaxanthin as food colorant in animal and fish feed[2]. And also The European Commission considers natural astaxanthin as a food dye[3].This has adopted its consumption and nowadays, it is being widely used as a nutraceutical. Its global market demand is expanding and expected to reach $2.57 billion worldwide by 2025. Haematococcus pluvialis is a green microalga, which accumulates high astaxanthin content under stress conditions such as high salinity, nitrogen deficiency, high temperature and light[5-6].

The interest on natural pigments and high cost of synthetic pigments demand the isolation of astaxanthin from natural sources[7]. The use of astaxanthin as a nutritional supplement has expanded rapidly across foods, feeds, nutraceuticals, and pharmaceuticals. This review summarizes current knowledge on astaxanthin sources, extraction

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Floating Drug Delivery System of Ciprofloxacin for Gastric Retention and Sustained Release

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Abstract: A novel class of gastro-retentive drug delivery systems (GRDDS), floating drug delivery systems (FDDS) are made to increase the duration of a drug's residence in the stomach, which improves absorption, bioavailability, and therapeutic efficacy. A second-generation fluoroquinolone antibiotic, ciprofloxacin is a perfect fit for gastric-retentive formulations due to its pH-dependent solubility and limited absorption window in the upper gastrointestinal tract. This review thoroughly examines the effervescent, non-effervescent, and raft-forming systems used in the formulation of Ciprofloxacin FDDS, highlighting the importance of polymers, gas-generating agents, and excipients in achieving controlled drug release and sustained buoyancy. In order to comprehend formulation performance and release mechanisms, evaluation techniques like kinetic modeling, in vitro buoyancy, dissolution testing, and pre- and post-compression studies are highlighted. The review also examines how FDDS affects pharmacokinetics and pharmacodynamics, showing how extended gastric retention can lower the frequency of doses and enhance therapeutic results. Notwithstanding certain drawbacks, including fluctuations in stomach emptying and reliance on stomach fluid volume, Ciprofloxacin FDDS presents a viable strategy for maximizing oral treatment. Their effectiveness and usefulness in patient care may be further improved by future studies that concentrate on in vivo performance, polymer innovation, and clinical translation.

Keywords: Ciprofloxacin,Floating drug delivery system (FDDS),Gastro-retentive drug delivery system (GRDDS),Gastric retention,Sustained release

I.INTRODUCTION

The fluoroquinolone class of antimicrobial agents, which includes the broad-spectrum antibiotic ciprofloxacin, is distinguished by a fluorine substitution that improves pharmacokinetic and potency characteristics [1]. It is frequently used to treat respiratory, gastrointestinal, and urinary tract infections because of its high effectiveness against a variety of Gram-positive and Gram-negative bacteria [2]. The enzymes bacterial DNA gyrase (topoisomerase II) and topoisomerase IV, which are necessary for bacterial DNA replication, transcription, and repair, are inhibited by ciprofloxacin [3]. Ciprofloxacin inhibits the re-ligation of DNA strands, which results in DNA breaks and the eventual death of bacterial cells, by stabilizing the enzyme–DNA complex [3,4].

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REVIEW OF HERBAL SHEET MASK

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Abstract

Customers' growing desire for natural and eco-friendly skincare products is driving growth in the market for herbal cosmetic formulations. Herbal face mask sheets have gained popularity among them due to their ease of use, effective distribution of bioactive ingredients, and lack of negative side effects compared to their synthetic counterparts. Occlusion, hydration, and enhanced skin penetration of herbal active ingredients are the mechanisms through which these sheet masks function.

The review identifies a number of herbal ingredients used in sheet mask formulations for skin protection and rejuvenation that have proven pharmacological benefits. These include Centella asiatica (wound-healing, collagen synthesis), Moringa oleifera, Punica granatum, Ocimum sanctum, Melaleuca alternifolia (antibacterial, anti-acne), Curcuma longa (anti-inflammatory, antioxidant), and Coffea arabica. Natural Fibers such as cotton, bamboo, or sheets of bio cellulose impregnated with hydrogel or serum bases containing humectants, essential oils, and herbal extracts are typically used in formulation design. Among the evaluation factors are tests for skin compatibility, stability, moisture content, pH, viscosity, and microbiological load.

Recent studies have demonstrated that using sheet masks made of herbal ingredients can significantly improve skin tone, hydration, and the reduction of pigmentation or acne (2019–2025). Future prospects include the use of nanocarrier systems (liposomes, Nano emulsions), customized formulations based on skin type or aromatherapy principles, and biodegradable hydrogel sheets. The review emphasizes the need for more clinical validation, safety evaluation, and widespread commercialization in order to fully realize the medicinal and cosmetic potential of herbal sheet masks.

Keywords

Curcuma longa skincare beneficently, centella asiatica wound healing, Tea tree oil antimicrobial properties, Pomegranate peel extract antioxidant, Moringa oleifera skin benefits, Green coffee extract skincare, Rose water hydrating properties, Glycerine humectant properties, Tulsi extract antibacterial, biocelluose mask substrate.

Introduction

Face masks have evolved from traditional clay and poultice treatments to sophisticated delivery systems that deposit active ingredients and restore skin homeostasis. Modern mask forms have developed to include creams, gels, hydrogel patches, bio cellulose, and the widely used single-use sheet mask in order to optimize contact duration, occlusion, and targeted component delivery. Masks are an essential adjunct in cosmetic dermatology for targeted treatment, hydration, and barrier repair because of recent studies showing how advancements in substrate materials (like hydrogel and bio cellulose) and mask engineering have improved adhesion, moisture retention, and transdermal active delivery.[1]

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Innovative Microneedle-Based Drug Delivery System for Minimizing Systemic Toxicity of Doxorubicin in Breast Cancer Therapy"

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Abstract : Breast cancer continues to be a predominant cause of mortality in women, with traditional treatment hindered by systemic toxicity and inadequate effectiveness in metastatic scenarios. Doxorubicin (DOX), a powerful anthracycline chemotherapeutic, is commonly utilized; however, its clinical use is limited by dose-dependent cardiotoxicity and low bioavailability. Microneedle (MN)-based transdermal drug delivery systems are a promising, minimally invasive way to get drugs to penetrate the skin better while causing less pain and systemic side effects. Different types of MNs have been made, including solid, coated, dissolving, hollow, and hydrogel ones. These were made using polymers, metals, and silicon and were shaped using micromolding, hot embossing, and lithography methods.

We made single- and dual-drug dissolving microneedles (DMNs) by adding DOX to the microneedle matrix. To make DOX-loaded DMNs, 50 mg of DOX was mixed with 1 g of a 21% w/v PVP K360 solution, and the mixtures were poured into molds for microneedles. To measure drug loading, we dissolved the detached microneedle shafts in a 50:50 mixture of water and acetonitrile, then vortexed, ultrasonicated, filtered, and analyzed them using HPLC or fluorimetry. Blank DMNs acted as controls. In general, DMN-mediated delivery is a big step forward for transdermal chemotherapy. It makes drugs more available, reduces the risk of heart damage, and makes breast cancer treatment more effective.

Keyword : *Breast cancer, Doxorubicin, Chemotherapy, Cardiotoxicity, Transdermal drug delivery, Microneedles, Controlled release.*

I.INTRODUCTION

Cancer, characterized by the uncontrolled growth of cells, remains one of the leading causes of death worldwide. In 2007, it accounted for approximately 7.9 million deaths, representing ~13% of global mortality. In the United States, cancer is the second leading cause of death after cardiovascular disease. Despite significant advancements in treatment over the past five decades, cancer continues to pose a major health challenge, driving extensive efforts to explore new therapeutic strategies.[1]
Traditional approaches—including surgery, chemotherapy, and radiotherapy—have proven effective in controlling tumor growth and, in some cases, achieving cures. For many solid tumors, such as colon cancer, progress in early diagnosis and combination therapies has markedly improved patient survival. However, once tumors metastasize, treatment becomes more complex. In certain cancers, such as glioblastoma, the integration of early detection, surgery, chemotherapy, and radiotherapy fails to extend survival beyond 1–2 years.[1]

Breast cancer (BC) is the most prevalent malignancy among women, with 2.3 million new cases reported globally in 2020 (WHO).[2] According to the GLOBOCAN 2012 report, an estimated
14.1 million new cancer cases were diagnosed worldwide, resulting in 8.2 million cancer-related deaths. Additionally, approximately 32.6 million people were living with cancer within five years of their diagnosis. Notably, less developed regions accounted for 57% of the new cancer cases, 65% of cancer-related deaths, and 48% of the population living with cancer. In India, the incidence and mortality rates were 25.8 and 13.3 per 100,000, respectively. Data from the International Agency for Research on Cancer (IARC) emphasize the importance of early detection and improved prognosis in reducing BC-related mortality. In order to reduce the burden of disease, the WHO emphasizes the importance of risk factor modification, early diagnosis, and efficient management. In general, BC risk factors can be divided into two groups: modifiable and non-modifiable. Growing older, a family
history of BRCA1/2 mutations, reproductive factors, and precancerous breast lesions are examples of non-modifiable factors.[2] With the exception of skin cancers, breast cancer is the most common invasive cancer diagnosed and the second most common cause of cancer-related death for women in the US.[39] Breast cancer is a diverse disease with several subtypes, and creating efficient treatment plans requires an awareness of receptor expression profiles, including ERα, PR, and HER2. Targeting these receptors has been essential to the treatment of estrogen receptor-positive (ER^+) breast cancer, which accounts for about 70% of cases. Hormonal

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"MUCOADHESIVE BUCCAL FILMS OF SUMATRIPTAN: AN INNOVATIVE APPROACH FOR MIGRAINE MANAGEMENT"

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Abstract

Mucoadhesive buccal films are a new platform for systemic and local drug administration that avoids first-pass metabolism and has advantages like rapid onset, prolonged release, and improved patient compliance[1,3,5]. Sumatriptan, a selective 5-HT1B/1D receptor agonist, is commonly used to treat migraines, however its oral bioavailability is poor due to first-pass metabolism[4,8,15].The creation of mucoadhesive buccal films enhances the pharmacokinetic and pharmacodynamic characteristics of sumatriptan [2,13]. This study fully examines the ideas of mucoadhesion, polymers, preparation procedures, assessment techniques, clinical viewpoints, regulatory considerations, and recent advancements in mucoadhesive buccal films with an emphasis on their potential in the treatment of migraines [1,5].

Keywords

buccal mucoadhesive film, succinate of sumatriptan, Buccal medication delivery, mucoadhesion, controlled release, polymers, Transmucosal administration

Introduction

1. Mucoadhesive Drug Delivery System

Mucoadhesive drug delivery systems extend the dosage form's residence time at the site of absorption, by interacting with mucin molecules and the mucus layer that covers the mucosal epithelial surface [1, 3]. The length of stay in the gastrointestinal tract (GIT) must be extended for medications with local action or those with the highest absorption in the GIT [3,5]. Therefore, mucoadhesive dose forms are beneficial for both therapeutic activity and raising medication plasma concentrations. The mechanics and theories of mucoadhesion, factors affecting mucoadhesive devices, and different mucoadhesive dose forms are all included in this study[3,6].

Concept of Mucoadhesion

The capacity of some polymers to stick to mucosal surfaces is known as mucoadhesion. Electrostatic attractions, and hydrogen bonds are examples of physicochemical interactions that are necessary for this occurrence [3,6]. The mucosal environment, physiological variables, and polymer characteristics all affect the process [6,7].

Mechanism of Mucoadhesion

Mucoadhesion refers to the ability of a drug and its carrier to attach to the mucosal layer, which is essential for the precise administration of medicinal agents [1,3]. This process is multifaceted and involves several stages including adsorption and wetting, moreover, the interpenetration' of polymer chains. Through these mechanisms, the drug-carrier complex is able to cling to the mucosal layer and remain in place ,for an extended period, providing sustained release at the drug's intended target [6,7]. Overall, the complex phenomenon of mucoadhesion is crucial for optimizing drug delivery and achieving therapeutic outcomes.

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REVIEW ARTICLE

Advancements in Nanosuspensions: Bridging Nanotechnology with Medicine to Transform Drug Delivery by Nanonization for Bioavailability Boosting

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ABSTRACT:
This article explores nanosuspensions, a novel dosage form with potential for drug development. Nanosuspensions are effective due to their versatility and working systems, making them suitable for various dosages and carrier systems. The study explores various techniques like high-pressure homogenization, media milling, emulsification-solvent evaporation, precipitation, and supercritical fluid processes. It also discusses the flexibility of administration routes, including parenteral, peroral, ocular, and pulmonary routes. The article aims to simplify further research outcomes in nanosuspensions and provides a systematic understanding of its principles, preparation techniques, advantages, identification, protected inventions, commercial products, and applications.

KEYWORDS: Nanosuspension, Bioavailability, Advantages, Drug Delivery, Nanoparticles.

INTRODUCTION:
Nanosuspensions are defined as colloidal dispersions of substances with particle size below 1 μm and poorly soluble drugs as the dispersed phase and surfactants or polymers as stabilizers. Unlike solid lipid nanoparticles and polymeric systems, they do not contain any matrix material. These systems improve the ability to dissolve and the rate of dissolution of hydrophobic drugs that are either insoluble in organic solvents or water at physiological ph. Nanosuspensions can be administered in several oral and parenterally active drug delivery systems including oral, ophthalmic, and inhalation[1-2].

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Some of the techniques include wet milling, high pressure homogenization, melt emulsification solvent evaporation and supercritical fluid technique. Nanosuspensions afford site-specific delivery; incorporated in classified formulations such as mucoadhesive hydrogels and ocular system. Other mean nanotechnology has improved the dissolution rates as well as the absorption of drugs in the bodies.[3,4,5].

Badly soluble drugs are a concern to pharma and the new kid on the block is nanosuspensions. The co-spray granulation technique is advocated as a potential approach to preparing these drugs. Being capable of enhancing bioavailability and solubility, nanosuspensions are in fact an enhancement to the present method of formulating drugs.[6,7].

Definition:
Formulations for drugs delivered through several routes (oral, topical, IV, etc.) contain small particles of solid active substances in the aqueous carrier with the stabilising or surfactant agents. These particles, which are generally below one micron (1000nm) and ranging from 10 to 1000nm enhance dissolving rate and

PROBIOTIC FERMENTED FOODS AS FUNCTIONAL NUTRITION: UNLOCKING THEIR POTENTIAL TO MODULATE GUT MICROBIOTA AND PROMOTE HUMAN HEALTH

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ABSTRACT

Fermented probiotic foods are being seen as functional nutrition, able to modulate gut microbiota and promote overall health. These agents are historically used for preservation, as well as their particular organoleptic properties. They do serve important functions by providing live microorganisms to the gastrointestinal tract, thereby supporting digestive, immune, and metabolic health. Fermentation enhances nutritional bioavailability, detoxifies toxins, and improves gut microbiota imbalance. Probiotics are live microorganisms that provide health benefits to the host when ingested in sufficient quantities. This depends on the composition and processing conditions of the foods (dairy and/or non-dairy) so the effectiveness and viability of the respective probiotics will vary. It is also being investigated to help address gastrointestinal disorders, increase immunity and lower inflammation, and even potentially for mental health issues like anxiety and depression. The demand from consumers has resulted in an ever-expanding market for probiotic-based functional foods, thereby also widening the need for studies into their health benefits and applications. This review discusses the mechanisms by which these types of foods are involved in human health and their possible avenues of future innovation in functional nutrition.

Keywords: Probiotics ,Fermented Food, Health, Microorganisms , Lactobacillus.

I. INTRODUCTION

In recent years, consumer demand has been a main factor in changing the face of food production. There has been a tremendous change in the belief that food has a direct effect on well-being and health, and that has led to a development in food production. In fact, food now not only satisfies hunger but also is extremely important in providing the most basic nutrients and preventing diseases while also aiding in the promotion of mental and physical health of consumers[1,2] Human has been long-standing practice eating fermented food for the health benefits it has, the organoleptic properties it gives, and the possibility for some nutritional constituents of fermented products to last a long time[3] These have been termed variously functional foods, definitions ranging from the simplest to complex ones. It can be said to be 'foods which benefit one or more target functions within the body apart from basic nutrition' or 'foods that improve health and wellbeing of the consumers or reduce risk of certain health conditions[4,5] However, there is a general consensus among experts that functional foods should contain certain ingredients (including live microorganisms, such as probiotics) meant to give health benefits beyond those provided by the basic nutrients of the food itself. Here, we basically present an overview of these concepts without going into the details of specific laws of each region or country. Functional foods, hence, are natural or processed foodstuffs of common consumption in the diet giving the essential nutritional norm and, at the same time, sharing potentially positive effects on health, including reduced incidence and progression of diseases through optimizing the capacity of the immune system to prevent and control infections caused by pathogens and other pathologies causing functional changes in the host [6,7]

Brief history of fermented foods in human diets

Traditional Fermented Foods and Beverages: Lifeline in the Diet of Humans. Fermented foods and beverages are attested early in Asia with vessels discovered in archaeological sites dating to around 8000 B.C [8,9] Conventional

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REVIEW ARTICLE

Nature's Shield for Oral Ulcer Management: A Comprehensive Review

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ABSTRACT:
Mouth ulcers, common sores found in the mouth, cause pain and discomfort, interfering with basic actions such as eating, speaking, and oral hygiene. RAS is prevalent globally, especiallyin young adult and children triggered by immunity, stress, diet, harmonal changes, infectios and injury. Typical treatments for mouth sores often involve corticosteroids applied directly to the affected spot, antiseptic mouthwashes, and oral medication. Although these choices can offer comfort, they might also lead to side effects and may not always tackle the root problems. Herbal medicine is becoming more popular for treating mouth ulcers because of its safety and traditional use in systems like Ayurveda. Plants like Aloe vera, Neem, Guava leaves, Chamomilla, and Tulsi and others plant have bioactive substances with notable properties for reducing inflammation, combating oxidation, and healing wounds. These natural remedies which help the oral sores heal quicker with fewer negative effects than artificial drugs. This review examines the utilization of herbal plants for treating different kinds of mouth ulcers, focusing on their mechanisms of action, cultural significance, and benefits over conventional therapies. Integrating herbal treatments into contemporary medical practice could offer a thorough and enduring approach to addressing oral ulcers. This approach could enhance patient care by providing affordable and popular natural remedies that are effective and accepted in various cultures.

KEYWORDS: Mouth ulcer, Herbal remedies, Oral sores, Reducing inflammation, Natural healing.

INTRODUCTION:
Mouth ulcer refers to any damage to the lining of the mouth, such as cuts, dentures, dryness, viruses, and immune-related issues. Recurrent aphthous ulcer (RAU) is the most common type of ulcerative disease, affecting approximately 25% of young adults and an even larger number of children.[1] Oral ulceration (OU) is the most common oral mucosal disease globally[2]

In the language of dentistry, mouth ulcers are painful mucosal lesions that usually affect the tongue, lip, cheek, or gums. Between 5 and 20% of people in general have mouth ulcers. Mouth ulcer pain and discomfort can make it difficult to speak, eat, drink, brush, breathe, and even speak, which lowers the patient's quality of life and productivity at work even though the lesion is benign and self-healing[3] Oral ulceration is defined by a chronic flaw or breakdown in the integrity of the oral epithelium, along with varying degrees of connective tissue loss beneath it, giving the condition a crater-like appearance.[4] India's ancient science is called Ayurveda. All that Ayurveda defines as health is completely essential. Ayurveda focuses on both curative and preventive measures. Pittaj Mukhapak recurs frequently. Another name for Mukhpak is Sarvasara roga. Mouth ulcers, burning pain, difficulty swallowing food, redness,

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FORMULATION AND PREPARATION OF ANTIMALARIAL SYRUP BY USING NYCTANTHES ARBOR-TRISTIS PLANT LEAVES

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ABSTRACT:

To put it simply, scientists are looking for new medications to treat malaria because the ones that are now available are losing their effectiveness because of drug resistance. In a prior study, a plant known as Nyctanthes arbor-tristis—also referred to as Parijat in Ayurveda— showed promise in treating malaria. For a week, 20 malaria patients were given the plant's leaf paste three times a day. They tracked a number of indicators in the patients, including fever, parasitemia (the presence of parasites in the blood), and morbidity score (a gauge of the severity of the sickness).

Molecular testing demonstrated that 10 out of 20 patients experienced both a fever and parasite clearance. Four of the remaining ten patients required further chloroquine treatment, and their parasitemia was declining. The severity of the condition decreased in all patients, regardless of the extent of parasitemia. Additionally, lactic acid levels, organ function, and platelet count all improved. Within a day, inflammatory cytokine levels, especially TNF-a, dropped.

In summary, at the recommended dosage, the plant Nyctanthes arbor-tristis showed promising results in treating malaria, including early clinical recovery, decreased inflammation, and progressive parasite removal. To find the best dosage and treatment plan for a larger patient population, the experts recommend more study using a standardized formulation.

KEWORDS: Antimalaria, Nyctanthes arbor tristis, Herbal Plants, treatment

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An Ayurvedic And Modern Overview Of Carica Papaya As An Anti-Ulcer Agent-A Review Article

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ABSTRACT: Papaya, scientifically known as Carica papaya is a member of family caricaceae.Papaya is a tropical plant which is being used in various ayurvedic formulations since ancient times and also shows commercial importance because of it's high nutritive and medicnal value.Papaya plant extracts has been found to show various functions like anti-inflammatory, antioxidant, diuretic antibacterial, vermifuse, abortifacient, hypoglycaemic, antihelminthic, and immunomodulatory etc.

Ulcers are basically the open sores that can develop on the lining of the stomach, small intestine or oesophagus. Anti-Ulcer activity refers to the mechanism or substances that prevent or heal ulcers in the GI tract. Various drugs and natural compounds exerts anti-ulcer effect by different mechanisms. Carica papaya has been explored for its potential anti ulcer properties due to its rich nutritional profile & bioactive compounds. Carica papaya contains various enzymes in its different parts like fruits, leaves, roots, latex etc. which are pharmacologically active in nature. So, this review enlightens the various pharmacological actions shown against ulcer conditions and mechanisms by which it has been found to be effective against ulcers.

KEY WORDS : Carica papaya , gastroprotective , anti-ulcer , papain , anti-oxidant

1. INTRODUCTION:

Carica papaya, commonly known as papaya, is a tropical fruit that has been recognized for its medicinal values from centuries. Both in historical practices and in Ayurvedic medicine, papaya has been widely used to treat various diseases, including ulcers. Different parts of papaya , such as the seeds, leaves, and latex, have been utilized for their healing properties in treating ulcers. Carica papaya has been evaluated for its gastroprotective and healing effects of the methanolic extract of the seed of the papaya Carica papaya L. in rats(4)

The latex of the unripe papaya fruit extract has been found to contain proteolytic enzymes, such as papain, which has been traditionally well known for their wound-healing properties. The presence of papain in papaya latex allows effective breakdown of dietary proteins, which may improve nutrient absorption and digestive efficiency.(7)

Historical Uses of Carica Papaya for Ulcers

Historically, Carica papaya has been used in traditional medicine systems across various cultures for its therapeutic properties. In folk medicine, the use of papaya was not only limited to treating digestive issues but also extended to treating ulcers. The unripe fruit, seeds, and leaves were commonly used in poultices and herbal concoctions to treat external and internal ulcers.(6)

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BEYOND FLAVOR: THE ANTIOXIDANT TREASURE TROVE IN DRAGON FRUIT AND TURMERIC

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ABSTRACT:
Anti-oxidants serve a vital role in the prevention of oxidative stress by neutralizing the free radicals which causes chronic diseases like cancer, cardiovascular disorders and neurodegenerative conditions. This study evaluates the anti-oxidant potential of *Hylocereus undatus* (dragon fruit) and *Curcuma xanthorrhiza Roxb.* (Javanese turmeric), and their bioactive compounds and therapeutic applications. Dragon fruits being rich in polyphenols, flavonoids and betalains contribute to its anti-inflammatory and cardioprotective effects. Concurrently, turmeric renowned curcuminoids especially curcumin holds potential antioxidant and anti-cancer properties. Despite turmeric's potent anti-oxidant effect their bioavailability still remains a challenge opening doors of drug discovery for nanoparticle encapsulation and bioenhancers like piperine. This comparative analysis underscores the potential of plant resources both in neutraceuticals and pharmaceutical applications which may further add up on research for synergistic effects and techniques to enhance bioavailability.
Keywords: Antioxidant activity, Dragon fruit, Turmeric, Free radicals, Polyphenols, Curcuminoids.

INTRODUCTION

An antioxidant is a substance that prevents oxidation, which can lead to chemical reactions that generate free radicals. Oxidation can occur because of oxygen combining with other components. Polymerization and other chain reactions might be set off as a result. It is crucial to supplement foods with antioxidants to keep them from oxidizing. To lessen the negative consequences of oxidative stress, antioxidants can also be used as dietary supplements.[1]

Oxygen is essential for the life of aerobic organism, but it may become toxic if supplied at higher concentrations. Dioxygen in its ground state is relatively unreactive; its partial reduction gives rise to active oxygen species (AOS) such as singlet oxygen, super oxide radical anion, hydrogen peroxide etc. This is partly due to the oxidative stress that is basically the adverse effect of oxidant on physiological function. Free oxygen radicals play cardinal role in the etiology of several diseases like arthritis, cancer, atherosclerosis etc. The oxidative damage to DNA may play vital role in aging and the presence of intracellular oxygen also can be responsible to initiate a chain of inadvertent reaction at the cellular level and these reaction cause damage to critical cell biomolecules. The free radicals shown in the image are highly toxic and cause oxidative stress in plants. To counter these harmful effects, plants and other organisms have developed various mechanisms. In both plants and animals, antioxidants play a crucial role in neutralizing these free radicals.

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A Comprehensive Review On *Tinospora Cordifolia*

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ABSTRACT

In avoiding the development curtain disease. In fact, it is a great her by for postcorona virus care. But just like A project work is on medicinal plant Gulvel. Gulvel is often called ‘Amrita’ or the ‘nectar’of the immortality it is specially known to strengthen the immune system and keep disease at bay. It can also help deal with other medical issue like diabetes and anxiety an increasing no of people are consuming Gulvel to stay strong a midst the corona virus pandemic many doctors’ say’s Gulvel is reach in vitamins and can prove to be helpful.with everything also too much Gulvel is also bad among virus medical plants,Gulvel family Menispermeaceae is one of the most widely used shrub from ancient medical system as a medicine. Gulvel has been used in Indigenous system of medicine as Indigenous system of medicine as, indicated in virus classical text of ayurvedic system of medicine, oy also finds a special mention for its use in tribal or folk medicine in different part of the country. Gulvel is known for its immense application in the treatment of various diseases in the traditional ayurvedic literature. Medicinal plants have been utilized by people for their therapeutic benefits from the beginning of human existence. For thousands of years, the environment has been a source of medical compounds, and a significant proportion of contemporary medication

Keywords: Amrita, Antioxidant Activity, Gulvel, guluchi, Giloy Syrup.

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Brief Review On Tinospora Cordifolia, Its Phytochemical, Pharmacological Properties And Ayurvedic Formulation Of Tinospora Species

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Abstract: In the india, traditional indian system of medicine AYUSH (Ayurveda, Yoga, Unani, Siddha and Homeopathy) is widely used from ancient time. Ayurveda is a comprehensive, natural health care system that originated in the ancient vedic times of india. Tinospora Cordifolia is used as ayurvedic formulation from ancient time. The aim of this review article explore about various phytochemical, pharmalogical activities and ayurvedic formulation of Tinospora Cordifolia. Tinospora Cordifolia also called as heart leaved moonseed, amrita, gurbel, giloy or guduchi(in Sanskrit) is a herb of the family Menispermaceace. It is native torrid areas of India, Srilanka, Myanmar, Australia and Africa. It is attracted attention in the last few 10 years becaue whole part of plant like roots, stems and leaves are used in folk medicine and the ayurvedic system of medicine alonen and use in combination with other plant for treating several diseases. Tinospora cordifolia is broadly acknowledge as a important plant in the indian system of medicines due to its biological active componds and has been therapeutic used in disease like diabetes, jaundice, stomachache, urinary promblems, cancer, fever, helminthiasis, leprosy, skin aliments dysentery, prolonged diarrhea and many more. T. cordifolia has a rich sources of phytochemicals that extract used as medicnal properties. Phytochemical present in T. cordifolia is alkaloids, steroids, glycosides, diterpenoid lactones, phenloics, aliphatic compound and polysaccharides.

Keywords: Pharmacognosy, Cultivation, Phytochemistry, Pharmacological activity, Ayurvedic formulation

Introduction: History of T. cordifolia is when Ravana, the majesty of Lanka and the god of the rakshasa, capture Rama's wife, Sita from the forest, driven by lust, the powerful Rama is surrounded by monkey soldiers, destroyed that enemy who had theft is wife, on the battleground. With the proud Ravana, the enemy of the gods, Indra, the majesty of gods, was pleased with Rama. The majesty of gods, Indra revived the monkeys who had been distroyed by the rakshasa in battleground, by sprinkling nectar showers. Those places nectars drop fell from monkeys bodies, T. cordifolia plant were born[1].

Plant medicine is also called phytomedicine. 70-80% of individuals still use herbal medication for primary care because it is more palatable to the human body and has fewer side effects. The rich understanding of traditional herbal medicine system like Siddha, Ayurveda and Unani, along with India's biodiversity offer a strong basis for the genral healthcare application of a wide range of species and common illnesses.

Pharmacognosy of Tinosporia cordifolia

Tinospora cordifolia, also referred to as Guduchi, Amrita or Giloy, has a number of botanical synonyms, one of which is Tinospora mahajanii. Tinospora mahajanii was reduced to synonymy with Tinospora cordifolia, indicating that they pertain to the same species, and this synonymy was established. Furthermore, Tinospora cordifolia belongs to a wider group of species in the Tinospora genus that are known for their therapeutic

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Tridax procumbens: A Weed Turned Wonder - Exploring Its Therapeutic Versatility and Pharmacological Promise

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Abstract:
Tridax procumbens, a globally prevalent weed and an integral part of traditional Ayurvedic medicine, exhibits diverse pharmacological properties due to its rich phytochemical composition. This review consolidates the therapeutic potential of *T. procumbens* across various domains, highlighting its antimicrobial, antioxidant, anti-inflammatory, wound healing, hepatoprotective, antidiabetic, anticancer, anti-ulcer, analgesic, antimalarial, hair growth-promoting, and neuroprotective activities. The plant's bioactive compounds, including alkaloids, flavonoids, tannins, glycosides, sterols, polyphenols, and vitamins, contribute to its multifunctional applications.

The antimicrobial activity is particularly noteworthy, targeting various bacterial strains, while its antioxidant properties, linked to phenolic compounds, play a crucial role in mitigating oxidative stress and facilitating wound healing. Anticancer studies reveal significant tumour-suppressive effects, particularly in breast and prostate cancer models. Additionally, *T. procumbens* demonstrates hepatoprotective effects by reducing oxidative stress and promoting liver cell regeneration. Its anti-inflammatory and analgesic effects are mediated through molecular pathways involving COX-2 and TNF-α.

Despite these promising results, most studies are limited to in vitro or preclinical models. Further research is required to elucidate detailed molecular mechanisms, optimize bioactive compound extraction, and evaluate clinical efficacy through human trials. Additionally, the development of novel drug delivery systems and standardized formulations can enhance its therapeutic potential and market viability.

This review underscores the need for advanced pharmacological investigations and sustainable utilization of *T. procumbens*. With its extensive pharmacological profile and promising therapeutic potential, *T. procumbens* emerges as a valuable candidate for drug discovery and development, offering opportunities for integration into modern medicine.

Introduction: -

For centuries, nature has been a prolific source of medicinally active compounds, with numerous substances extracted from natural origins. Medicinal plants have long been regarded as a valuable and reliable resource for treating human diseases and ailments due to their diverse therapeutic components. Among such plants is *Tridax procumbens*, an annual or perennial herb (15–40 cm tall) native to Central and South America, now widely adapted to various regions across the globe, including India, where it thrives in diverse geographical and subtropical conditions. Commonly known as “cotton buttons,” *Tridax procumbens* belongs to the family Asteraceae (or Compositae) and shares its genus with species like *T. balbisioides* and *T. trilobata*.

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Legume of the Future: *Macrotyloma uniflorum* for Health and Wellnes

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Abstract:

Macrotyloma uniflorum commonly known as Horse Gram is an underutilized legume native to the Indian subcontinent that is prized for its high nutritional value and tolerance to drought. Horse gram is known for its protein-rich seeds and is an important source of dietary protein, fiber, vitamins, and minerals. The plant is widely used as food, livestock feed, and traditional medicine due to its many health benefits, including: Promoting digestive health, treating diabetes, and reducing inflammation. Despite its potential, the plant is often neglected in favour of more common legumes. This overview focuses on the agronomic and nutritional importance of horsepea, challenges in cultivation, and emerging trends in the use of horsepea for both edible and medicinal purposes. Recent studies have highlighted the need for intensified research to enhance the role of genetic improvement, pest resistance and value-added products in food security and sustainable agriculture. The role of horsepea as a climate change resilient crop holds promise for future agricultural practices especially in arid and semi-arid regions.

Macrotyloma uniflorum presents not only potential as a nutritious dietary component but also as a significant plant in traditional medicine. Its extensive cultivation across diverse geographical conditions, coupled with its pharmacognostic attributes, highlights its importance and further underscores the need for more extensive research into its applications in health and nutrition.

Keywords: *Macrotyloma uniflorum*, Phytoconstituents, Hyperglycaemic activity, Anti-oxidants, Kulthi, Kulith, Kharthi.

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"LEVERAGING ARTIFICIAL INTELLIGENCE FOR MONITORING AND REPORTING ADVERSE DRUG REACTION IN PHARMACOVIGILANCE"

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Abstract:

Background- Pharmacovigilance is the scientific field that reports and tracks hazardous medication reactions. several mistakes were made when researching pharmacovigilance using conventional techniques. This review paper essentially examines the significant role artificial intelligence plays in pharmacovigilance monitoring and reporting adverse medication reactions. Various methods and algorithms are used for data analysis and product development. Even when working with enormous amounts of data, AI approaches help decision-making by streamlining information processing and boosting process agility. It's also important to emphasize the value of data, which several companies have utilized to generate positive results that outweigh the costs of information management. **Method-** A thorough literature study was carried out to find significant advancements and patterns in pharmacovigilance research and clinical practice. Using keywords like "pharmacovigilance," "adverse drug reactions," "drug safety," and "artificial intelligence," Google Scholar, PubMed, and pertinent scientific databases were searched. Included were studies, reviews, and guidelines published in peer-reviewed journals that focused on developments in sequencing technologies, the creation of customized pharmacovigilance panels, and methods for incorporating pharmacovigilance testing into standard clinical workflows. **Result-** application of AI in pharmacovigilance to track and report hazardous medication reactions. Research has identified actionable germline and somatic bookmarkers linked to the effectiveness of drugs. In pharmacovigilance, artificial intelligence tracks and reports adverse medication reactions. AI has shown potential in identifying actionable biomarkers linked to drug efficacy in pharmacovigilance.

Key points: pharmacovigilance, adverse drug reactions, drug safety, artificial intelligence, the importance of AI tools, and application of AI.

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"Traditional Herbal Medicines: A Comprehensive Review of Their Role in Managing Diabetes Mellitus"

Ms.Pooja A. Karpe[1], Ms. Neha S. Yadav[2], Dr. V.P. Patil[3], Dr. G.A. Vaishnav[4] Dr. S.S. Angadi[5] .

Yash Institute of Pharmacy Chhatrapati Sambhajinagar

ABSTRACT:

Diabetes mellitus (DM), a chronic metabolic disorder with increasing prevalence worldwide, particularly in South Asia, is characterized by high blood glucose levels due to inadequate insulin production or action. Traditional Indian herbal medicines offer valuable complementary therapies in managing DM due to their low cost, accessibility, and fewer side effects compared to conventional pharmacotherapy. Various plants, including bitter gourd (Momordica charantia), palmyrah palm (Borassus flabellifer), American ginseng (Panax quinquefolium), Gymnema sylvestre, and Indian gooseberry (Emblica officinalis), have shown promising anti-diabetic properties. These plants possess bioactive compounds that can lower blood glucose levels, improve insulin sensitivity, reduce oxidative stress, and combat DM-related complications. Bitter gourd, for instance, contains charantin and momordicoside, known to enhance glucose uptake. Gymnema sylvestre reduces sugar absorption, while Amla is rich in antioxidants, promoting glucose regulation. Such phytomedicines highlight the potential of integrating herbal therapies into DM treatment, warranting further research to establish standardized formulations and dosages.

INTRODUCTION:

Diabetes mellitus is a type of chronic metabolic disorder characterized by insufficient insulin secretion and/or activity. Absence of the anabolic hormone insulin can result in abnormalities in the metabolism of proteins, carbohydrate, and fats[1]. The International Diabetes Federation (IDF) estimates that there were over 366 million people with diabetes in 2011 and that 4.6 million of them died from the disease annually. The epicenter of this diabetes epidemic is now the Indian subcontinent The reported prevalence of diabetes in adults aged 20 to 79 is as follows: 3.03% in Nepal, 7.77% in Sri Lanka, 9.85% in Bangladesh, 8.31% in India, and 6.72% in Pakistan [2]. The American Diabetes Association (ADA) estimates that the average yearly medical expenses for persons with DM were $12,700, and the total national costs for all cases of diagnosed DM in the USA in 2012 were around $245 billion. Numerous macrovascular (ischemic heart disease, stroke, and peripheral artery disease) and microvascular (neuropathy, nephropathy, and retinopathy) consequences follow chronic hyperglycemia brought on by diabetes mellitus. The occurrence of the mentioned manifestations must be decreased through lifestyle modification initiatives and glucose-lowering techniques aimed at improving control of DM metabolic diseases[3]. When diabetes develops, the body's cells are unable to properly digest sugar because insulin, a peptide hormone that controls blood glucose, does not activate on target tissues as it should. Insufficient insulin production by the pancreas or inefficient insulin utilization by the body result in the incapacity of insulin to metabolize sugar. This causes the body to break down its own fat, protein, and

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"PLANT BASED MOSQUITO REPELLENTS: EXPLORING THE NEED, CHALLENGES AND FUTURE PROSPECTS OF SAFE, EFFECTIVE AND ECO-FRIENDLY ALTERNATIVES"

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ABSTRACT:

The burden of mosquito-related illnesses continues to be a prevailing health issue on a global scale, with many millions suffering from malaria, dengue, Zika virus, and other such diseases each year. Though traditional synthetic repellents used to deter mosquitoes from biting are effective, there are several limitations associated with their usage such as toxicity to the environment and non-target organisms, pollution, and resistance to insecticides among mosquitoes. Hence in contrary to synthetic ones, plant mosquito repellents are being viewed more and more as safe and environment-friendly measures to use. These plant extracts mosquito repellents including medicinal plants are natural, targeted, and most importantly biodegradable in nature which reflects the need for such eco-friendly and sustainable technologies. Nevertheless, there are challenges to the commercialization of these solutions including production capacity, delivery, economics, shelf-life, and concentration of active components. This review discusses the history, principles, and active constituent plants in herbal mosquito repellents and their pros compared to the synthetic ones. It outlines the problems of large scale production in scale-up, regulatory approval, and entry into market. In conclusion the article suggests the pathways for the future including nanotechnology, genetic engineering of plants, and hybrids of the botanically derived and chemically synthesized products. Plant based mosquito repellents for sure can be used as a vector control threat for any age group for a very long time, sustainable in the present day and in the days to come because of this.

KEYWORDS: Mosquito-borne disease, Mosquito repellents, Plant-based, Synthetic, Challenges

INTRODUCTION:

Mosquitoes are insects belonging to order *Diphtera, Culcidae* family, infamous for their blood consuming habits displayed by females of most species. There are around 3000 species of mosquitoes out of which 100 play a significant role as vectors of various diseases that impact human health and ecological balance [1]. Vectors refer to any arthropod or any living organism that behave as hosts or carriers of an infectious agent or pathogen among organisms of different species playing a biological or mechanical part in the transmission [1,2]. Vector borne diseases, although previously neglected, are responsible for 17% of the global infectious diseases making them a significant health burden. The primary method for preventing vector borne diseases is vector control i.e. decreasing or eradicating human contact with the vector [3].

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NATURE'S CURE: A COMPREHENSIVE REVIEW OF MEDICINAL PLANTS IN THE TREATMENT OF ACNE VULGARIS

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ABSTRACT

Acne vulgaris affects a wide range of age groups and gender identities the worldwide, leading to significant impacts on both the physical and mental well-being. Conventional acne remedies usually involve medications that fight inflammation and bacteria, still concerns about resistance to antibiotics and negative side effects have led to increased interest in alternative remedies such as herbal treatments. This review explores the usage of various medicinal plants for treating acne, with a focusing on their healing properties and mechanisms of action. These herbs can address the root causes of acne, like bacteria, inflammation, and sebum, with no adverse effects seen in synthetic medications. The evaluation implies that integrating these natural treatments in acne management could offer a safer, more thorough approach, yet more clinical studies are needed to confirm their efficacy and improve their therapeutic advantages.

KEYWORDS: Acne vulgaris, Herbal remedies, Skin health, Natural treatment, Propionibacterium acnes.

INTRODUCTION

Acne, belonging to a group of skin conditions, is a highly common dermatological disorder worldwide. It typically impacts nearly everyone at some point in their life.[1] Acne vulgaris, also known as acne, is a contagious condition and one of the most common illnesses in

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A Review on Natural Tyrosinase Inhibitors in Hyperpigmentation: Pomegranate Peel

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ABSTRACT
Hyperpigmentation is a dermatological phenomenon that causes excessive melanin production, leading to skin discoloration and darkening of skin. Skin hyperpigmentation is caused by several factors, including UV exposure, oxidative stress, and inflammatory responses that enhance melanin production. Skin pigmentation is mediated by melanocytes, situated in the epidermal basal layer which synthesize eumelanin and pheomelanin, responsible for dark and light skin tones. The melanogenesis pathway involves the three essential key enzymes: tyrosinase, TYRP1, and TYRP2. Tyrosinase is a copper-containing enzyme, that facilitates melanin biosynthesis and plays key roles in skin pigmentation, healing, protection from radiation, and immune function. Tyrosinase is a critical enzyme for melanin production, and its inhibition has become a key strategy for controlling melanin synthesis. Various synthetic agents are used as tyrosinase inhibitors, but they have been linked to various dermatological issues. Phenolic-rich pomegranate peel extract is evidenced as a safe herbal-derived material promising for skin hyperpigmentation treatment. With these, it also has Anti-neoplastic, Antioxidant, Anti-microbial, and Anti-diabetic activities. Its phenolic compounds can be obtained through various extraction technologies.

Keywords: Hyperpigmentation, Melanocytes, Pomegranate, Extraction, and Tyrosinase

Introduction

The kinetic ameliorate covering of the human body; skin behaves as the first line of defense of life by minimizing internal homeostasis with exterior environment. The skin then shields the internal organs and body system from rough conditions as it acts as a shield to microbes, chemicals, and ultraviolet radiation from sunlight and conserves water. Skin color, perhaps the most easily observed polytypic variation in humans, has likely been the topic of more research than any other aspect of human variation. The color of the skin is very important in the perception of beauty as beauty is only skin deep.

In humans, two forms of melanin pigmentation occur. The first of these is constitutive skin color, which refers to the amount of melanin pigmentation inherent in one's genes which is taken to be the skin color before the effects of the sun and other parameters have a chance to act. The other is facultative[inducible] skin color, the ratio of dark-brown eumelanin and red, yellow pheomelanin, and wherein the epidermal layers it is produced. The skin color other than melanin[brown] also depends on the blood flow [red oxygenated hemoglobin and blue reduced hemoglobin] and the content of β-karotin[yellow] or vitamin A fats[1].

Hyperpigmentation is usually a consequence of increased melanin, which can be localized in the epidermis or dermis, or both. Most commonly this occurs through an increased production of melanin by existing

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देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *DEVICE FOR LIPOSOMAL BASED DRUG DELIVERY FOR DIABETIC INDUCED NEUROPATHY* से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1.Dr. Sushama Vaishnav 2. Dr. Gajanan Vaishnav 3.Ms Vaishali Dadaji Shewale 4.Ragesh Gurumoorthy 5.Dr. Prashant Gupta 6.Dr. Rahul L. Shirole 7.Moidul Islam Judder 8.Dr Simanchal Panda 9.Dr Sushama Rawat 10.Ms Riddhi Singh के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to *DEVICE FOR LIPOSOMAL BASED DRUG DELIVERY FOR DIABETIC INDUCED NEUROPATHY* in the name of 1.Dr. Sushama Vaishnav 2. Dr. Gajanan Vaishnav 3.Ms Vaishali Dadaji Shewale 4.Ragesh Gurumoorthy 5.Dr. Prashant Gupta 6.Dr. Rahul L. Shirole 7.Moidul Islam Judder 8.Dr Simanchal Panda 9.Dr Sushama Rawat 10.Ms Riddhi Singh.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 14/05/2025
Date of Issue :

उमा शं. पंडित
महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

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The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

INTELLECTUAL PROPERTY INDIA

सत्यमेव जयते

ORIGINAL
क्रम सं/ Serial No. : 178324

पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 422974-001

तारीख / Date : 12/07/2024

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *HIGH SPEED COMPACT APPARATUS FOR SEPARATION OF BIOACTIVE COMPOUNDS* से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1.Dr. Anjana Male 2. Dr. Grandhi Surendra 3.Dr. Madhuri Desavathu 4.Dr. Sathvik Belagodu Sridhar 5.Dr. M Naveenkumar 6.Ms. Sonali Angadrao Gore 7.Dr. Nagesh Shivaji Tour 8.Dr. Rohit Baban Chavhan 9.Miss. Priyanka Pandurang Thore 10.Mrs. R. Priyadarshini के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to *HIGH SPEED COMPACT APPARATUS FOR SEPARATION OF BIOACTIVE COMPOUNDS* in the name of 1.Dr. Anjana Male 2. Dr. Grandhi Surendra 3.Dr. Madhuri Desavathu 4.Dr. Sathvik Belagodu Sridhar 5.Dr. M Naveenkumar 6.Ms. Sonali Angadrao Gore 7.Dr. Nagesh Shivaji Tour 8.Dr. Rohit Baban Chavhan 9.Miss. Priyanka Pandurang Thore 10.Mrs. R. Priyadarshini.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि :
Date of Issue : 21/08/2024

उन्नत की चंडिल
महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal

INTELLECTUAL PROPERTY INDIA

सत्यमेव जयते

ORIGINAL

क्रम सं/ Serial No. : 189232

पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 432395-001

तारीख / Date : 01/10/2024

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *APPARATUS FOR DEVELOPING SOLID LIPID NANOPARTICLES FOR TREATMENT OF BREAST CANCER* से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1.Dr. Kusum Kumari 2. Mrs. Shital Nishant Shende 3.Ms. Tania Munjal 4.Mrs. Mansi Roshan Barai 5.Miss. Rupali Vijay Done 6.Dr. Ln Patidar 7.Miss. Aditi Arun Mhatre 8.Dr. Rohit Baban Chavhan 9.Mr. Swapnil Mohan Shipate 10.Mr. Milind Dilip Phanse के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to *APPARATUS FOR DEVELOPING SOLID LIPID NANOPARTICLES FOR TREATMENT OF BREAST CANCER* in the name of 1.Dr. Kusum Kumari 2. Mrs. Shital Nishant Shende 3.Ms. Tania Munjal 4.Mrs. Mansi Roshan Barai 5.Miss. Rupali Vijay Done 6.Dr. Ln Patidar 7.Miss. Aditi Arun Mhatre 8.Dr. Rohit Baban Chavhan 9.Mr. Swapnil Mohan Shipate 10.Mr. Milind Dilip Phanse.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि
Date of Issue : 07/01/2025

उन्नत पंडित

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Controller General of Patents, Designs and Trade Marks

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The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

Intellectual Property Office

Certificate of Registration for a UK Design

Design number: 6391254

Grant date: 24 September 2024

Registration date: 16 September 2024

This is to certify that,

in pursuance of and subject to the provision of Registered Designs Act 1949, the design of which a representation or specimen is attached, had been registered as of the date of registration shown above in the name of

Miss Anum Kamal, Dr. Aisha Kamal, Dr. Balakrishnan Ramajayam Asokan, Miss. Siddhi Srivastava, Miss Jayshreemaa Biswal, Mrs. Kavya Chandran, Ms. Aishwaryah Selvam, Dr. Rohit Baban Chavhan, Ms. Sapna Rani, Mr. Rounak Jaiswal

in respect of the application of such design to:

Artificial Intelligence Based Nerve Activation Device for Treatment of Peripheral Neuropathy

International Design Classification:
Version: 14-2023
Class: 24 MEDICAL AND LABORATORY EQUIPMENT
Subclass: 01 APPARATUS AND EQUIPMENT FOR DOCTORS, HOSPITALS AND LABORATORIES

THE PATENT OFFICE OFFICIAL

Adam Williams
Comptroller-General of Patents, Designs and Trade Marks
Intellectual Property Office
The attention of the Proprietor(s) is drawn to the important notes overleaf.

INTELLECTUAL PROPERTY INDIA

सत्यमेव जयते

ORIGINAL
क्रम सं/ Serial No. : 181059

पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No.	:	425811-001
तारीख / Date	:	05/08/2024
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *DEVICE FOR DEVELOPING HERBAL LIPOSOMES FOR THE TREATMENT OF CANCER* से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1.Supriya Sharad Bhosale 2. Dr. Nikita Ashok Parage 3.Ms. Komal Gangadhar Nirale 4.Ms. Dhanashri Rajendra Patil 5.Mrs. Gauri Omkar Phadke 6.Ms. Pradnya Shantaram Naykodi 7.Ms. Pooja Ashokrao Karpe 8.Ms. Shaikh Sana Tahreem Shaikh Moiez के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to *DEVICE FOR DEVELOPING HERBAL LIPOSOMES FOR THE TREATMENT OF CANCER* in the name of 1.Supriya Sharad Bhosale 2. Dr. Nikita Ashok Parage 3.Ms. Komal Gangadhar Nirale 4.Ms. Dhanashri Rajendra Patil 5.Mrs. Gauri Omkar Phadke 6.Ms. Pradnya Shantaram Naykodi 7.Ms. Pooja Ashokrao Karpe 8.Ms. Shaikh Sana Tahreem Shaikh Moiez.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि
Date of Issue : 20/09/2024

उन्नत की चंडिव
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*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

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INTELLECTUAL PROPERTY INDIA

ORIGINAL

क्रम सं Serial No. : 190201

पेटेंट कार्यालय, भारत सरकार | The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No : 447889-001

तारीख / Date : 12/02/2025

पारस्परिकता तारीख / Reciprocity Date*

देश / Country

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *DEVICE FOR LIPOSOMAL BASED DRUG DELIVERY FOR DIABETIC INDUCED NEUROPATHY* से संबंधित है, का पंजीकरण, वर्ग 24-01 में 1.Dr. Sushama Vaishnav 2. Dr. Gajanan Vaishnav 3.Ms Vaishali Dadaji Shewale 4.Ragesh Gurumoorthy 5.Dr. Prashant Gupta 6.Dr. Rahul L. Shirole 7.Moidul Islam Judder 8.Dr Simanchal Panda 9.Dr Sushama Rawat 10.Ms Riddhi Singh के नाम से उपर्युक्त संख्या और तारीख से कर लिया गया है।

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डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 14/03/2025
Date of Issue

उमा शंकर पांडेय
नियंत्रक जनरल, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो), जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का पारस्परिकता पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के नियमों के अधीन, पांच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विदेश कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

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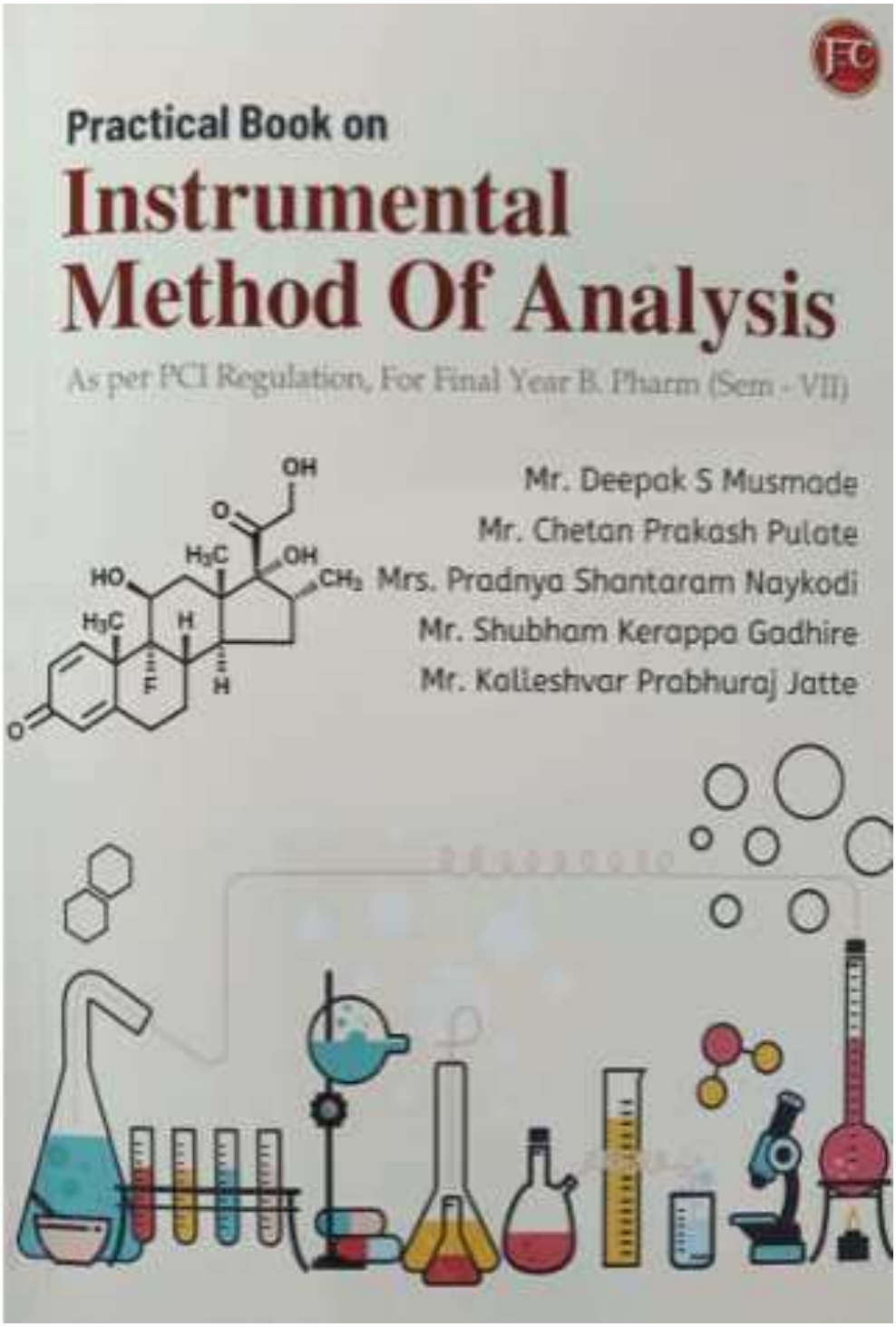
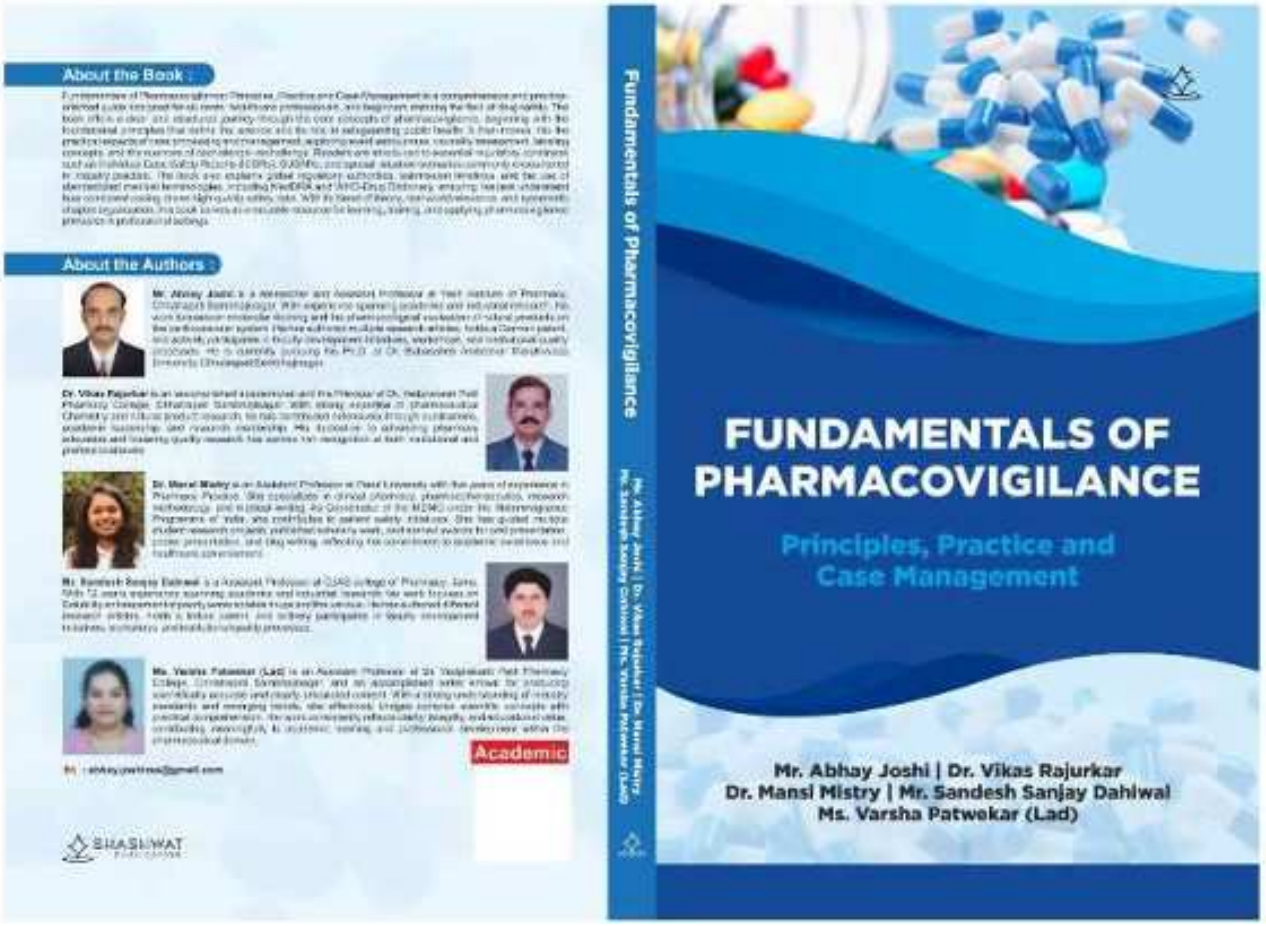
Book Publications



Ms. Pradnya S. Naykodi


About the Book :
About the Authors :
Academic
Fundamentals of Pharmacovigilance
FUNDAMENTALS OF PHARMACOVIGILANCE
Principles, Practice and Case Management
Mr. Abhay Joshi | Dr. Vikas Rajurkar
Dr. Mansi Mistry | Mr. Sandesh Sanjay Dahiwal
Ms. Varsha Patwekar (Lad)

Mr. A.S.Joshi

FDP Certificate of D.M.Kulkarni

senses

Revolutionizing Teaching

CERTIFICATE OF COMPLETION

INTERACTIVE TEACHING USING SENSES INTERACTIVE TECHNOLOGY

THE CERTIFICATE IS PROUDLY PRESENTED TO

Ms. Yogita Shirsath

This certificate represents the recipient's advanced knowledge, skills and mastery of delivering technology driven interactive classes and teaching using senses interactive frames - India's largest manufacturer of intelligent interactive panels for schools and colleges.

PRASHANTH P

CERTIFIED BY

DATE

Ms.Y.R.Shirsath Interactive teaching Certificate

Online Short-Term Faculty Development Program Certification

Certificate

This Certificate is awarded to

DIPALI MANIK KULKARNI

for successfully completing DBT STAR College and PM-USHA Project catalyzed Online Short-Term Faculty Development Program on "Design Thinking : Excellent Learning Outcomes" During 25th Feb. to 7th Mar. 2025.

Jointly Organized by Career Katta (An initiative of Maharashtra State Higher and Technical Education Department and Maharashtra Information Technology Support Centre) and

Innovative Pedagogy Development Centre, Shri Shivaji Science College, Amravati; in collaboration with

UGC-Malaviya Mission Teacher Training Centre (Former UGC-HRDC), Sant Gadge Baba Amravati University, Amravati.

The participant has achieved A Grade in the proctored examination held on 9th March 2025.

Prof. Dr. Mohammad Atique
Director, UGC-MMTTC,
Sant Gadge Baba Amravati
University, Amravati (MS)

Dr. D. D. Khedkar
ST-FDP Coordinator
Shri Shivaji Science College,
Amravati

Mr. Yashwant Shitole
President
Maharashtra Information
Technology Support Centre

Dr. G. V. Korpe
Principal
Shri Shivaji Science College,
Amravati

Date : 9th March 2025 Certificate ID DT:STFDP-074 Score Guide Grade "F" is not valid

FDP Attended by D.M.Kulkarni

Association of Pharmaceutical Teachers of India

Sponsored

Two Day National Level Conference & Poster Presentation Competition

on

Drug Discovery and Development : Global Scenario & Indian Perspective

11th and 12th March 2025

Organized by

Mula Education Society's

College of Pharmacy, Sonai

A/P. Sonai, Tal. Newasa, Dist. Ahilyanagar, Maharashtra, India-414105

B.PHARM COURSE ACCREDITED BY NATIONAL BOARD OF ACCREDITATION (NBA)

Certificate

2024-2025

This is to Certify that,

Prof/Dr/Mr/Mrs/Ms Yogita Ramdas shirsath

From Yash Institute of pharmacy Chhatrapti Sambhaji N... has attended

Two day National Level conference on "Drug Discovery and Development : Global Scenario & Indian Perspective" & presented a poster on

at MES's College of Pharmacy, Sonai on 11th and 12th March 2025.

Dr. A.R. Pawar, Co-ordinator

Dr. R.B. Pandhare, Co-ordinator

Dr. V.B. Dhawale, Vice-Principal

Dr. V.K. Deshmukh, Principal

National Level Conference Attended by Ms. Y.R.Shirsath

ASSOCIATION OF PHARMACEUTICAL TEACHERS OF INDIA (APTI)

MAHASHTRA STATE BRANCH

MAHA-APTICON-2025

Empowering Teachers by Unlocking their Potential

Certificate of Participation

This is to certify that

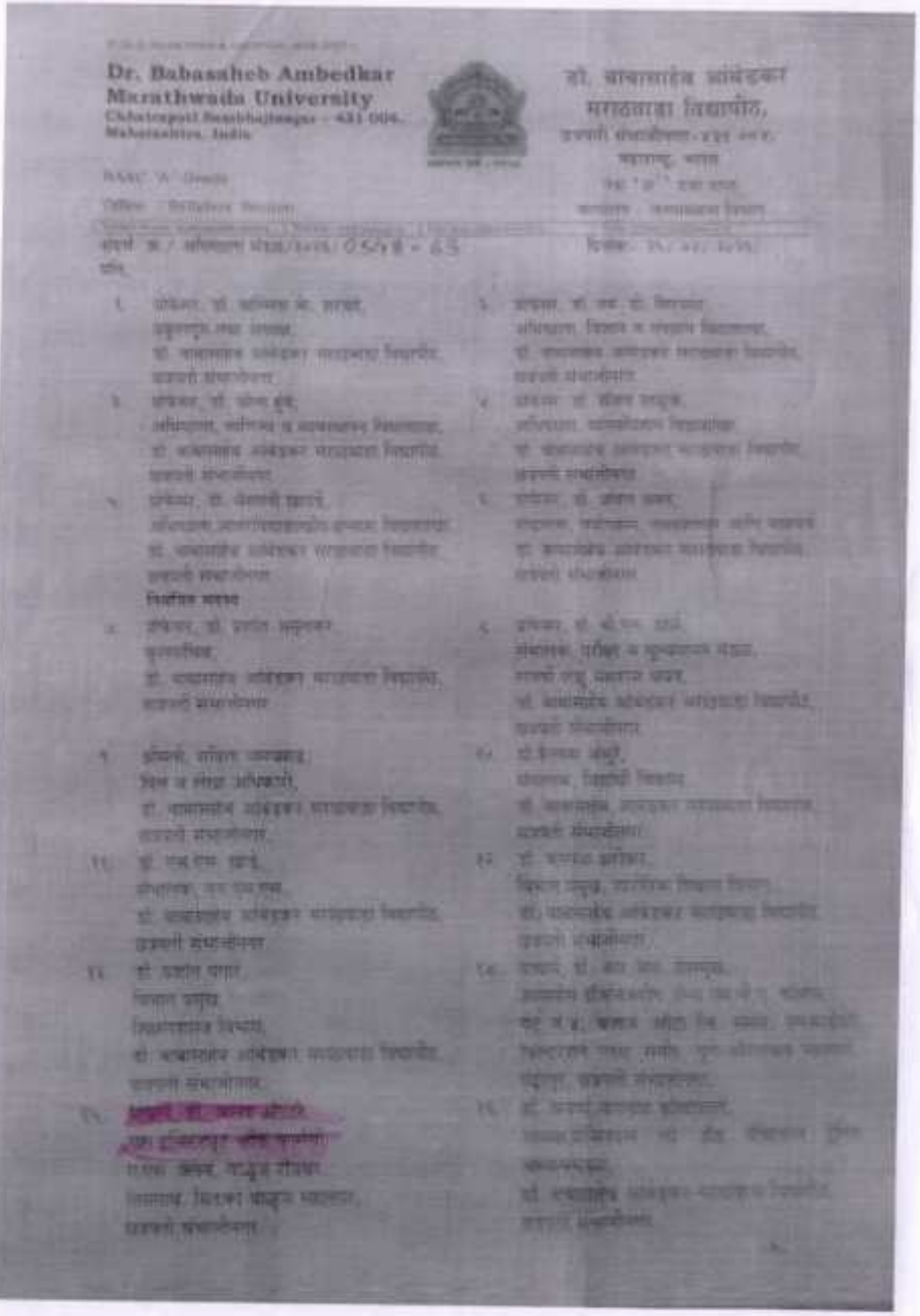
Dr. Angadi Sachidanand Shankar

has participated as a delegate in the Maha-Apticon-2025 Conference held at Chh. Sambhajinagar on 15th February 2025. His / Her active participation is highly appreciable

Dr. Rakesh Somani, President APTI-MS

Dr. Prashant Shamkuwar, Chairman LOC

Dr. Swaroop Lahoti, Organizing Secretary



Dr. Babasaheb Ambedkar
Marathwada University
Chhatrapati Sambhajinagar - 431 004.
Maharashtra, India

डॉ. बाबासाहेब आंबेडकर
मराठवाडा विद्यापीठ,
छत्रपती संभाजीनगर - ४३१ ००४.
महाराष्ट्र, भारत

NAAC 'A' Grade

दिनांक :

प्रति,

विषय:- विद्यापीठ विभाग, विद्यापीठ उपकेंद्र, उमरगाव व सर्व संलग्नीत महाविद्यालये यांचे शैक्षणिक वर्ष २०२५-२०२६ या शैक्षणिक वर्षा करिता सांकेतिक दिनदर्शिका व त्यानुसार सत्र व सुट्टया निश्चित (Academic Calander) करत बाबत.

महोदय/महोदया,

उपरोक्त संदर्भीय विषयाच्या अनुषंगाने मा. प्र.कुलगुरु महोदय यांच्या प्रशासकीय अधिकारात घेण्यात आलेल्या दि. दिनांक २७/ ०२/ २०२५ रोजी सकाळी ११.३० वाजता व्यवस्थापन सभा येथे विद्यापीठ विभाग, विद्यापीठ उपकेंद्र, उमरगाचार व सर्व संलग्नीत महाविद्यालये यांचे शैक्षणिक वर्ष २०२५-२०२६ या शैक्षणिक वर्षा करिता सांकेतिक दिनदर्शिका व त्यानुसार सत्र व सुट्टया निश्चित (Academic Calendar) तयार करण्या संदर्भात मा. प्र.कुलगुरु महोदय यांच्या अध्यक्षतेखाली संपन्न झालेल्या सदरील बैठक इतिवृत्त करण्यात आलेली आहे.

कृपया सदरील बैठकीचा अहवाल उपलब्ध राहून सहकार्य करावे.

कुलसचिव

Dr. Babasaheb Ambedkar Marathwada University
Chhatrapati Sambhajinagar – 431 004, Maharashtra, India
NAAC Re-accredited 'A'' Grade
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http://bamua.digitaluniversity.ac

स्थापना वर्ष : १९५८

डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ
छत्रपती संभाजीनगर - ४३१ ००४, महाराष्ट्र, भारत
नॅक समितीतर्फे 'अ' दर्जा प्राप्त
Email : dyregistrar.acad@bamu.ac.in
acadsection@bamu.ac.in
कार्यालय :- शैक्षणिक विभाग (संलग्नीकरण)

Ref.No. ACAD/AFFIL/ARW/2025-26/ 9534 **Date:- 02-01-2026**

To,
The Principal,
Maulana Azad Education Trust's,
Y. B. Chavan Pharmacy College, Rauzabag,
Chhatrapati Sambhajinagar.

Subject :- Nomination on Various bodies for Autonomous.
Ref. :- 1] Your Letter No. 177 & 315 dated 08-12-2025.
2] Hon'ble Vice Chancellor note approval dated 02-01-2026.

Sir,

With reference to your letter I am to state that the Hon'ble Vice-Chancellor is pleased to nominate the following persons on Various bodies of your college.

Body / Committee	Number of nominations	Clause	Nomination
Governing Body	One	One member nominated by University	Dr. P. S. Wakte, Dept. of Chem. Tech., Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
Academic Council	Three	Three nominees of the university not less than Professors	1) Dr. P. S. Wakte, Dept. of Chem. Tech., Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar. 2) Prin. Dr. Prashant Shyamkuwar, Government College of Pharmacy, Chhatrapati Sambhajinagar. 3) Prin. Dr. S. S. Agadi, Yash Institute of Pharmacy, Chhatrapati Sambhajinagar.
Various Board of Studies (BoS)	One one each board of studies	One Expert to be nominated by the Vice Chancellor from a panel of six recommended by the college Principal	Dr. Gajanan Vaishnav, Yash Institute of Pharmacy, Chhatrapati Sambhajinagar.
One Member as the University Nominee	One	One Member as the University Nominee	Dr. Sachin Bhusari, Dept. of Chem. Tech., Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.

This is for your information.

DEPUTY REGISTRAR
(Acadmic Section)

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Dr. Babasaheb Ambedkar
Marathwada University
Chhatrapati Sambhajinagar Maharashtra
(India)
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डॉ. बाबासाहेब आंबेडकर
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छत्रपती संभाजीनगर-४३१००४. महाराष्ट्र (भारत)
नॅक समितीतर्फे अ दर्जा प्राप्त

Office : Director, Board of Examination & Evaluation
कार्यालय : संचालक, परीक्षा व मूल्यमापन मंडळ

REF.: Exam/Co-ord/Oct/Nov 2024/ 766 -73 DATE : 18.12.2024

To,

Dr. Ashok Narote
Yash College of Pharmacy,
Waluj,
Chhatrapati Sambhajinagar

Subject : Appointment as Director **Pharmacy** D-CAS Centre for the Examination Nov/Dec 2024.

Sir,

I am glad to Inform you that the Hon'ble Vice- Chancellor is pleased to Appoint you as Director at the P.G. D-CAS Centre-1 For the Examination to be held in November/December 2024. I am, therefore, to request you to kindly accept the above assignment and forward your acceptance at the earliest.

I am further to state that the assessment of the answer books of **Pharmacy** Courses will have to be done at the D-CAS Center. Approximately 20000 to 40000 answer books will be received by the D-CAS Center for assessment.

A copy of the scheme of the D-CAS Centre along with the list of the approved staff to be appointed and the various heads of expenditure that can be incurred under the scheme and assessment programme are enclosed for your information and ready reference. The actual work of the assessment will have to be done at the **Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar** where all the facilities are available.

It is pointed out here that the scheme of Moderation is to be undertaken during the D-CAS Scheme. The said scheme may please be followed as per the guidelines / Ordinance enclosed herewith.

The necessary formats of the printed stationery etc will be supplied to you shortly. The working of the D-CAS Centre will have to start from 19.12.2024.

It is pertinent to point out here that as provided under Section – 17 (5) (J) of the Maharashtra Public Universities Act 2016, it is mandatory on the University to Declare the results of every examination within 30 days and in any case latest within 45 days as provided in section 89 and is case of delay or the unable to finally declare the result within the aforesaid period of 45 days, the university has to send a report, incorporating the detailed reasons for such delay, to the Chancellor and to the State Government. In view the said strict provision, I am to request you to make necessary efforts to complete the work of evaluation of answer books allotted to your Centre atleast within 25 days from the last date of examination and if for any reason it is unable on your part to adhere to he said date please arrange to submit the report, indicating the reason (s), if any, there of.

You are aware that the University has introduced a scheme of Grievance Redressal Mechanisms from March/April 2008 examination, under scheme, the examinees are provided photocopies of the answer books on their demand. There is a time limit prescribed for issuance of photocopies of answer books to the candidates and hence after the result of examination is declared the concerned functionaries of your D-CAS Centre may please be directed to supply urgently the original answer books required under the Grievance Redressal Mechanism. Further, you will be assigned the work related to evaluation of answer books under Grievance Redersaal Mechanism for the above mentioned examinations.

The required staff for Grievance Rederssal Mechanism is allowed under the scheme of D-CAS Center may please be appointed from the various university departments. If the departments staff not available that time remuneration will be applicable as per rule.

I am, therefore, to request you to kindly go through the scheme. Moreover, the concerned Officer/ Staff of the examination branch will provide you any other information required or will also solve the difficulties if any in day to day work.

Note – Please take over the charge of D-CAS Director as early as possible.

Yours sincerely,

Director
Board of Examination
& Evaluation

Copy to 1. The Principal , Yash College of Pharmacy, Waluj, Dist- Chhatrapati Sambhajinagar.

2. Section Officer, Engineering Unit Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar for information and necessary action.

IJRMPS

AssoPharmaTech

SHODH EVENTS

Mintbotics

SHRI MARDADI

CERTIFICATE

OF PARTICIPATION

THIS IS TO CERTIFY THAT

Prof./ Dr./Mr./Ms./Mrs. **Shaikh Sana Tahreem**, **Assistant Professor** at **Yash Institute of Pharmacy, Chattrapati Sabhajinagar**

Scan for verification

Certificate No.:
FDP20240701/050

has actively participated and completed five days Faculty Development Program/Training Program on,

"Enhancing Research Skills and Publication Success"

from 22 July to 26 July 2024

jointly organized by ShodhEvents, Mintbotics Edutech Pvt.Ltd., Indian Journal of Research Methods in Pharmaceutical Sciences (IJRMPS), AssoPharmaTech and Shri Mardadi Solutions.

Mr.A.S.Joshi	Mrs. R.B.Dhakne	Dr. G.A.VAishnav	Dr.S.G.Vaishnav	Mr.S.M.Joshi
Managing Editor IJRMPS	Convener AssoPharmTech	Director ShodhEvents	Executive Director Mintbotics Edutech Pvt.Ltd.	Director Shri.Mardadi Solutions

IJRMPS

SHODH EVENTS

Mintbotics

SHRI MARDADI

Scan for verification

Certificate No.:
FDP20250301/110

CERTIFICATE

OF PARTICIPATION

THIS IS TO CERTIFY THAT

Ms. Shaikh Sana Tahreem, Assistant Professor of

Yash Institute of Pharmacy, Chhatrapati Sambhajinagar

has actively participated and completed six-day Faculty Development Program/Training Program on,

"Writing & Publishing in High-Impact Journals: Methods and Ethical Use of AI"

from 24 March to 29 March 2025

Jointly organized by ShodhEvents, Shri Chhatrapati Shivaji College of Pharmacy,Kannad, Mintbotics Edutech Pvt.Ltd., Indian Journal of Research Methods in Pharmaceutical Sciences, and Shri Mardadi Solutions LLP.

Dr. Rahul Kshirsagar	Dr. G.A.VAishnav	Dr.S.G.Vaishnav	Mr.S.M.Joshi
Principal Shri Chhatrapati Shivaji College of Pharmacy, Kannad	Director ShodhEvents	Executive Director Mintbotics Edutech Pvt.Ltd.	Director Shri.Mardadi Solutions