

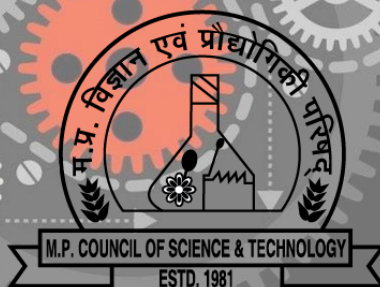
# National Seminar

On

## FOSTERING INTELLECTUAL PROPERTY RIGHTS IN THE FIELD OF PHARMACEUTICAL RESEARCH AND DEVELOPMENT

Sponsored by

**Madhya Pradesh Council of Science &  
Technology (MPCST)**



Organized by



**School of Pharmacy & Research  
People's University, Bhopal, (M.P.)**



सरसुति के भंडार की, बडी अपूरब बात।

ज्यों खरचै त्यों-त्यों बढै, बिन खरचे घटि जात॥

# SCHOOL OF PHARMACY & RESEARCH

(Formerly People's Institute of Pharmacy & Research Centre)

## VISION

- ✦ To establish a center for imparting knowledge, enhancing skills and cultivating attitudes among the students, in order to achieve academic and human excellence.
- ✦ To develop human sensibilities and dedication to the cause of humanity and ambition to make lasting contribution to the society.
- ✦ To provide a Centre for research and innovation to meet horizons of knowledge in all its streams.

## MISSION

- ✦ To produce competent and employable pharmacy professionals who can significantly contribute for nation building.
- ✦ To promote pharmaceutical research and innovation towards development of horizons of research knowledge in students and faculty members.
- ✦ To develop People's Institute of Pharmacy & Research Center as a center of excellence and preferred destination for students towards development of skills and high degree of pharmaceutical knowledge.





**Prof. Shailendra Saraf**  
**Vice Chancellor, Durg University**  
**Vice-President, Pharmacy Council of India**

## MESSAGE

It gives me immense pleasure to know that the team of School of Pharmacy & Research for organizing MPCOST Sponsored National Seminar on **“Fostering Intellectual Property Rights in the Field of Pharmaceutical Research And Development”**.

I believe that this seminar will open the channels between the research and its recognition through a systematic documentation process. Carrying out an innovative work in a lab or working in isolation from the research fraternity makes the work remain unrecognized and at the end it perishes. Therefore, it is the responsibility of a researcher/innovator to make available his/her research work's outcome into the public domain through peer-review process. This can be done in the form of Patents or Publications.

Our Madhya Pradesh State is having much potential towards the innovation but due to lack of awareness we remain masked. In this regard, this seminar will provide a platform wherein a researcher (Industry/Academic) will be made aware towards significance research publications in any discipline.

I, congratulate once again the organizers for choosing such an important and critical topic for the betterment of scientific community and recognition.

I wish the grand success of this event.

**Prof. Shailendra Saraf**



**Dr. Chandra Shekhar Verma**  
Regional Officer, CRO  
AICTE, Bhopal

## MESSAGE

I am delighted to know that a National Seminar on “**Fostering Intellectual Property Rights in the Field of Pharmaceutical Research & Development**” is being organized by School of Pharmacy & Research, a constituent unit of People’s University, Bhopal. The state of Madhya Pradesh is having vast potential towards the innovation, which requires awareness amongst the stake holders.

This seminar will provide platform to professionals working in different facets of the profession, to churn on the issues and decide the future path. I wish a grand success of this event. I extend my warm greetings and felicitations to the organizers and participants and wish the Convention a great success.

**Dr. C. S. Verma**



**Dr. V. K. Pandya**  
Director Academic  
People's Group Bhopal

## MESSAGE

It's our great honor that, School of Pharmacy and Research, a constituent unit of People's University, is organizing a MPCST sponsored National Seminar on **"Fostering Intellectual Property Rights in the Field of Pharmaceutical Research and Development"** on 7th April 2018.

The theme of the seminar enlightens the challenging issues i.e IPR faced by the pharmaceutical, health sector and other technical and non technical sectors.

I am sure that this seminar will create research aptitude in delegates, research scholars and students for patenting and also widen the understanding of innovative work in pharmaceutical field.

I wish whole program a great success.

**Dr. V. K. Pandya**



**Dr. Neerja Mallick**

Registrar

People's University, Bhopal

## MESSAGE

I am delighted to learn and feel proud that a National Seminar on the theme **“Fostering Intellectual Property Rights in the Field of Pharmaceutical Research & Development”** is being organized by the School of Pharmacy & Research, a Constituent unit of People's University, Bhopal. In a very short period, People's University has carved a niche for itself among the leading universities of Central India.

I am sure that participation from expert speakers from esteemed institutes of the country will help the faculties, students and delegates from all over the country, will provide a vital knowledge and enrich them in the field of Intellectual Property Rights, patents, copyrights etc.

I extend my warm greetings and felicitations to the organizers and participants and wish the Seminar a great success.

**Dr. Neerja Mallick**



**Dr. Neeraj Upmanyu**  
Principal, SOP&R  
Officiating Vice-Chancellor  
People's University, Bhopal

## MESSAGE

I am delighted that as a constituent unit of People's University, School of Pharmacy and Research is organizing a MPCST sponsored National Seminar on "Fostering Intellectual Property Rights in the Field of Pharmaceutical Research and Development" on 7<sup>th</sup> April 2018.

The theme of the seminar shall enlightens the knowledge of IPR especially patents, which will be very useful for researchers of pharmacy and other fields, business managers and also help in the economic growth and development of the country. Intellectual Property Rights and patent filing allow the researchers to focus on commercially relevant research because it ensures proper remuneration.

I am sure that the seminar will create research aptitude in delegates, research scholars and students for filling Patents in various fields and will be a boon in developing new trends in the field of pharmaceutical arena.

I wish whole program a great success.

**Dr. Neeraj Upmanyu**



**Dr. Rupal Dubey**  
Organizing Secretary

## MESSAGE

On behalf of Organizing Committee, I am delighted to invite you to participate in MPCST sponsored National Seminar on **“Fostering Intellectual Property Rights in the field of Pharmaceutical Research and Development”** in beautiful city of lakes Bhopal. Steeped in rich history and an intriguing past, Bhopal, the capital city of Indian state of Madhya Pradesh, is a true paradise for historians, archaeologists, art & architecture patrons and off-course, curious travelers.

As per the theme national seminar will focus on lectures of Intellectual Property Rights (IPR) in the field of Pharmaceutical Research and Development given by distinguished speakers from Academia, Industry and Law institutes. New elements such as Interactive Expert Exchanges, Complex Case Discussions and student-speakers interaction will be the highlights of this seminar.

The organizing committee, under the able guidance of Patron, Co-patron, Convener and Advisor, has been very active and arrangements are well under way to ensure that the national seminar is a resounding success. As we know that Pharmacists are an integral part of the health care system, and are among the most trusted and accessible health care professionals. So with the same spirit and commitment towards health of our society we are organizing this national seminar on “World Health Day”.

Venue selection of the seminar i.e. People’s University Auditorium in University campus was done very carefully by us. You will find University campus very environment friendly with Tree-lined avenues and lush lawns dotted with beautiful flowering shrubs soothe the eyes and create an ideal learning ambiance. Also the University Auditorium is centrally air-conditioned with a fully sound proof set up and equipped with latest technology for all types of audio/video presentations.

However, the most meticulously organized programs will be nothing without your active participation and support. It is our humble and sincere request to you all to come forward with your contributions by way of your presence.

**Dr. Rupal Dubey**

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**CONVENER**



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# INVITED TALK

**NATIONAL**

**FOSTERING INTELLECTUAL PROPERTY RIGHTS IN THE FIELD OF  
PHARMACEUTICAL RESEARCH AND DEVELOPMENT**

**SEMINAR**

**Protection of Biopharmaceutical/Pharmaceutical  
Inventions**

**Dr. Nitin K. Jain**

Scientist-E/Joint Director in Department of Biotechnology,  
Ministry of Science & Technology, New Delhi



**Intellectual  
Property Rights**

**ABSTRACT:**

The biopharmaceutical/pharmaceutical inventions may include new biological/chemical entity, new dosage forms, new formulations, new methods for extraction, new processes, new diagnostics etc. Turning such inventions into innovations is a very complex process and commences with the protection of the technology/knowledge generated. The Intellectual Properties created in the field of Bio-pharmaceutical/Pharmaceutical Technology can be protected if they are new, involves inventive steps, has Industrial applicability and fulfils the patentability criteria as mentioned in the Indian Patent Act, 1970.

The importance of protection of IP, role of IP in technology transfer, process of patenting in India, some cases of patenting of bio-pharmaceutical /pharmaceutical products and processes will be discussed in the talk.

**7<sup>TH</sup> APRIL  
2018**

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# INVITED TALK

**NATIONAL**

**FOSTERING INTELLECTUAL PROPERTY RIGHTS IN THE FIELD OF  
PHARMACEUTICAL RESEARCH AND DEVELOPMENT**

**SEMINAR**

**IPR and Patent Drafting**

**Mr. Chandan Chandna**

Scientist Gr.I, Department of Pharmaceutical Management  
National Institute of Pharmaceutical Education and Research,  
S.A.S. Nagar, Mohali



**Intellectual  
Property Rights**

## **ABSTRACT:**

The seminar will focus on the basics of IPR and patent Drafting. How an student can file patent. What are the basic tools available free of cost on internet to perform patent related searches. What are the different types of IPRs? Who to manage them individually? What are the courses that are available can benefit students and teachers? What are the do's and don'ts related to the IPR being a R&D person?

**7<sup>TH</sup> APRIL  
2018**

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# INVITED TALK

**NATIONAL**

**FOSTERING INTELLECTUAL PROPERTY RIGHTS IN THE FIELD OF  
PHARMACEUTICAL RESEARCH AND DEVELOPMENT**

**SEMINAR**

**IP Laws**

**Prof. (Dr.) Ghayur Alam**

Professor in business law & MHRD Chair of IP Law  
The National Law Institute University, Bhopal



**Intellectual  
Property Rights**

## **ABSTRACT:**

IP Law is a device to promote creativity and generate wealth. However, at times IP Law stifles and chokes creativity and only remains a tool for wealth maximization. When this happens, IP Law becomes self-defeating.

**7<sup>TH</sup> APRIL 2018**

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# ABSTRACT

**NATIONAL**

## CHALLENGES IN TRIBAL MEDICINE: PROTECTING THROUGH INTELLECTUAL PROPERTY RIGHTS

**SEMINAR**

**Abin Mani and Vijay Thawani**

Centre for Scientific Research and Development (CSRSD), People's University,  
Bhopal

People's College of medical Science and Research and Development  
(PCMS&RC), People's University, Bhopal

**Intellectual  
Property Rights**

### ABSTRACT:

Tribal medicine (TM) is the knowledge and practice, transmitted orally or codified in the writings of folklore, passed from generation to generation. The TM has been recognized as a valuable source, having enormous human utility in development of novel pharmaceutical products. Madhya Pradesh has nine major tribes whose exhaustive knowledge of bio-sources as medicines is indigenous and valuable. The TMs are mainly used by economically poor and remote communities but their younger generation is less interested in preserving the invaluable wisdom. Intellectual property considers traditional medicine and knowledge as existing in the public domain which can be exploited without any recognition and acknowledgement. The World Intellectual Property Organization (WIPO) protects the traditional medical knowledge from unauthorized use. The Traditional Knowledge Digital Library, a database of India's traditional medicines is a tool to assist patent examiners to find bio-piracy in protecting traditional knowledge. Yet TMs are not valued as a national resource by the Government and hence are facing extinction. There is an urgent necessity to safeguard the TMs else the ancient, time tested, will be lost and will not be available. Thus TMs have to be documented, classified, listed and recorded through IPRs so as to protect the invaluable national resource. The IPR, apart from conservation will also provide protection from misutilization of our tribal wealth and help in preserving their knowledge of vast biodiversity of tribal flora, fauna, and other geographical resources of Madhya Pradesh.

**7<sup>TH</sup> APRIL 2018**

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>AMPHOTERICIN B LOADED EUDRAGIT RSPO/PLGA NANOPARTICLE FOR PROLONGED RELEASE</b>	<b>SEMINAR</b>
<p align="center"><b>Gunjan Jeswani, Ajazuddin ,</b> Faculty of Pharmaceutical Science, SSTC, Bhilai, Chhattisgarh. Rungta College of Pharmaceutical Sciences and Research, Kohka, Kurud Road, Bhilai.</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Objective: The present study was directed to formulate positively charged Amphotericin B loaded nanoparticle to provide prolonged release.</p> <p>Methodology: Nanoprecipitation method was used to prepare polymeric nanoparticles. The two Eudragit polymers RSPO and RLPO along with a biodegradable polymer were used in different concentration and varying ratios. The formulation was evaluated for particle size, zeta potential, yield and polymer-drug interaction. Differential scanning calorimetry was used to evaluate polymer drug interaction by comparing nanoparticles and pure polymers. Drug entrapment and release properties were also determined.</p> <p>Result and conclusion: The hemocompatibility was determined as per ISO: 109903-4. The nanoparticles were 200 nm in size with a zeta potential of 22.3 mV in phosphate buffer saline. Prolonged release with small burst effect was observed with good hemocompatibility.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b> <b>MPCST</b> <b>SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (People’s Institute of Pharmacy and Research Centre)</b></p> <p align="center"><b>A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

## STATUS OF PROPRIETARY RIGHTS ON IMMUNOMODULATORS

**SEMINAR**

**Gunjan Jeswani, Ajazuddin**

Faculty of Pharmaceutical Science, SSTC, Bhilai, Chhattisgarh. Email address:  
Rungta College of Pharmaceutical Sciences and Research, Kohka, Kurud Road,  
Bhilai, Chhattisgarh 490024, India

**Intellectual  
Property Rights**

### ABSTRACT:

Immunomodulators are biological agents used to adjust the body's immune function or biological response to external stimuli. They originate from natural and synthetic compounds.

Immunotherapy makes use of immunomodulators to treat malignant diseases like tumor and cancer. Immunotherapies based on cells like T cells, granulocyte colony-stimulating factor interferons, imiquimod and cellular membrane fractions from bacteria are some globally encouraged treatment models, as evident through growing number of patents for cancer. Others including interleukins, synthetic cytosine phosphate-guanosine oligodeoxynucleotides and glucans are also in the development stage, as indicated by results of clinical trials and lab trials.

Immunotherapy is swiftly emerging as a substitute to conventional chemotherapy. Predominantly adoptive cell transfer based therapy has revealed great potential in the late-stage disease treatment of cancer patients. Thus recently, many publications and patent have focused on the potential of immunomodulators.

Keywords: Patent, immunotherapy, immunomodulator, immune system.

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>INTELLECTUAL PROPERTY RIGHTS &amp; INDIAN SCENARIO</b>	<b>SEMINAR</b>
<p align="center"><b>Dr. Sukhwant Singh* &amp; Dr. Jitendra Banweer</b>  Sagar Institute of Research Technology &amp; Science – Pharmacy, Near ISRO,  Ayodhya Nagar, Bhopal</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Intellectual Property or IP, is the creation of one’s own intellect or intelligence. This includes intangible creations and encompasses Patents, Copyrights and Trademarks. It also protects the creation of Artistic nature like Music, Painting etc, apart from the viable economic protections like the trade secrets, publicity rights, moral rights, and rights against unfair competition. It was in the earlier 19<sup>th</sup> century that the term Intellectual Property was coined and used, but it started gaining widespread usage in majority world by the 20<sup>th</sup> Century.</p> <p>The main principle of intellectual property law is to promote the creation of a wide variety of intellectual goods. To achieve this, the law gives people and businesses property rights to the information and intellectual goods they create, usually for a limited period of time. Because they can earn profit from them, this gives economic incentive for their creation.</p> <p>The "Copyright Act, 1957" (as amended by the Copyright Amendment Act 2012) governs the subject of copyright law in India. "Indian trademark law" statutorily protects trademarks as per the Trademark Act, 1999 and also under the common law remedy of passing off. The Indian government approved its first Intellectual Property Rights Policy in May 2016. The Indian Patent Office is</p>	<p align="center"><b>7TH APRIL 2018 MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (People’s Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>CHEMICAL COMPOUNDS FROM CARRISA CARANDAS-A REVIEW</b>	<b>SEMINAR</b>
<p><b><sup>1</sup>HemRaj Vashist*, <sup>2</sup>Vivek Sharma</b>  <sup>1</sup>L.R Institute of Pharmacy Solan , Oachghat HP- 173223  <sup>2</sup>Govt. College of pharmacy Rohru, HP-171207</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p><i>Carissa carandas</i> is a species of flowering shrub in the dogbane family (Apocynaceae). Recently its name has been changed to <i>C.congesta</i>. Its leaf decoction is used in case of intermittent fever. The unripe fruits of the plant are used as an astringent. Its roots are used as bitter stomachic, vermifuge. It is an ingredient several preparation for itches. Small amount of salicylic acid has also been reported in the plant. Because of the presence of cardiac glycosides it is reported to lower slight BP. <i>Carrisa caranda</i> is an indigenous plant of himalayan region known for its fruits mainly. The ripe fruit is rich in phenol compounds triterpenoids, flavonoids, vitamins, peptides and sugars. Not only the fruit but the whole plant is known to have several valuable medicinal properties against several of the plant is because of several secondary metabolites present in the plant. Many terpenoids particularly mixture of sesquiterpenoids mainly carissone and caridone as a novel type of c-31 terpenoids have been reported from <i>C. carandas</i>. Other products include pentacyclic triterpenoids carissin.</p> <p><b>KeyWord-</b> <i>Carissa carandas</i>, astringent, astringent, cardiac glycosides, sesquiterpenoids.</p>	<p>7TH APRIL 2018</p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (People's Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>HERBO-NANO: NOVEL APPROACH FOR DRUG TARGETING</b>	<b>SEMINAR</b>
<b>Kanika Dhote , Vinod K Dhote , Sharad P Pandey, H.S Chandel</b> Truba Institute of Pharmacy, Bhopal	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Novel drug delivery system (NDDS) is a new approach in the drug delivery systems that overcomes the limitations of the old drug delivery systems. Our country India has a rich culture of Ayurveda and is used since time immemorial to cure the diseases. The oral route is considered is the best route but it has limitation of being reducing the efficacy of the drug. If the novel drug delivery technology is applied in herbal medicine, it may help in increasing the efficacy and reducing the side effects of various herbal compounds and herbs. The novel formulations are reported to have remarkable advantages over conventional formulations of plant actives and extracts which include enhancement of solubility, bioavailability, protection from toxicity, enhancement of pharmacological activity, enhancement of stability, improved tissue macrophages distribution, sustained delivery, and protection from physical and chemical degradation. However, modern phytopharmaceutical research can solve the scientific needs (such as determination of pharmacokinetics, mechanism of action, site of action, accurate dose required etc.) of herbal medicines to be incorporated in novel drug delivery system, such as nanoparticles, microemulsions, matrix systems, solid dispersions, liposomes, solid lipid nanoparticles and so on.</p> <p><b>Keywords:</b> Novel drug delivery system, phytopharmaceutical, pharmacokinetics.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>ENCROACHMENT IN DRUG DELIVERY: CARBON NANOTUBE</b>	<b>SEMINAR</b>
<b>Vinod K Dhote , Kanika Dhote , Sharad P Pandey, H.S Chandel</b> Truba Institute of Pharmacy, Bhopal	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>The scope of nanotechnology to develop target specific carriers to achieve higher therapeutic efficacy is gaining importance in the pharmaceutical and other industries. Nano-hybrid materials engage controlled production parameters in the making of engineered particles with specific size, shape, and other essential properties. It presents the opportunity to work with effective structures that have high drug loading capacities and good cell penetration qualities. These nanotubes function with a larger inner volume to be used as the drug container, large aspect ratios for numerous functionalization attachments, and the ability to be readily taken up by the cell. Also, drug encapsulation has been shown to enhance water dispersibility, better bioavailability, and reduced toxicity. Encapsulation of molecules also provides a material storage application as well as protection and controlled release of loaded molecules. All of these result in a good drug delivery basis. Carbon nanotubes can be used as multifunctional biological transporters and near-infrared agents for selective cancer cell destruction.</p> <p>These are also being developed as biosensors for glucose detection, DNA detection and a microbial biosensor based on carbon nanotube modified electrodes was developed. It is widely expressed that these materials will significantly contribute to the next generation of medical care technology and pharmaceuticals in areas of disease diagnosis, disease prevention and many other treatment procedures.</p> <p><b>Keywords:</b> Nanotechnology, Nano-hybrid, Carbon nanotubes, in vivo, bioavailability, bio distribution</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**USE OF SEROTONIN REUPTAKE INHIBITORS IN PATIENT  
OF CORONARY ARTERY BYPASS GRAFT SURGERY (CABG): AN  
EFFECTIVE THERAPY FOR MODERATE TO SEVERE MOOD CHANGES**

**SEMINAR**

**Rav Shourabh, Kushwah Hemant, Garg H.G**  
Truba Institute of Pharmacy, Bhopal

**Intellectual  
Property Rights**

## ABSTRACT:

Information is communicated from one nerve to another nerve & from nerve to effector organ by a chemical messenger called neurohumoral transmission (NHT). Depressive illness has a high prevalence in patients undergoing coronary artery bypass graft surgery (CABG). The first line treatment for depression are selective serotonin reuptake inhibitors (SSRIs) which inhibit serotonin reuptake in the pre synaptic neuronal membrane and uptake by platelets, inhibiting subsequent serotonin-mediated platelet activation. The main processes that occur in a classical chemically transmitting synapse and provides a useful basis for understanding the action of the many different classes of drugs .which act by facilitating or blocking neurochemical transmission The enzyme involved in synthesis or inactivation of the transmitter can be inhibited by the drugs , as can the transport system responsible for the neuronal and vesicular of the transmitter or its precursor The action of the great majority of drugs that act on the peripheral nervous system and ANS fit into this scheme.

**Keywords:** SSRIs, Neuro-chemical transmission, Coronary artery bypass grafting.

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# ABSTRACT

**NATIONAL**

**NEED OF EXTENSIVE QUALITY CHECK OF HERBO-MINERAL  
PREPARATION (BHASMA) BEFORE USING IT IN THE THERAPY**

**SEMINAR**

**Shukla N, Rajak S., Pandey S.P., Chandel H. S.**

Truba Institute of Pharmacy, Bhopal, M.P., India

**Intellectual  
Property Rights**

## ABSTRACT:

Herbo-mineral preparation (bhasma) has always fascinated the Indian peoples from ancient ages. Application of Bhasma in the therapy has gained a lot of popularity and has always been matter of mystery due to their method of preparation and its uses. In recent, few years the consumption of herbo-mineral preparation have increased tremendously and getting a wide acceptance. But still, the use of some toxic materials like parad (mercury) has always led to a question mark on such preparations. At the same time, toxicity issues due to heavy metals have also raised their heads very frequently leading to a big debate over their use. As there various literature of ayurveda and ayurvedic practitioners who are working since a long time mention that the proper sodhana process completely eliminates the toxicity issues of heavy metal and parad (Mercury) but the ashodhit herbo-mineral preparation may have the content of such element and may lead to serious ill effects. So, it is a big need of a scientifically validated preparation and evaluation methods for such formulations. As the market of these formulations increasing day by day and showing its presence to the different parts of word, have also presented a big need of proper quality control of these formulations.

**Keywords:** Ayurveda, Herbo-mineral preparation, Bhasma, Sodhana

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# ABSTRACT

**NATIONAL**

**HALF TABLET ADMINISTRATION: COST SAVING OR INVITING THE  
PROBLEMS**

**SEMINAR**

**Yadav M., Dangi Indu., Dhote K., Md Anayatullah., Pandey S.P.**  
Truba Institute of Pharmacy, Bhopal

**Intellectual  
Property Rights**

## ABSTRACT:

Half tablet administration or splitting of the tablet is very common in the pharmacists to individualize and titrate dosages from the start when tablet formulation has been started because patients often need the dose of their prescription medications adjusted. In general, it is accepted that during half tablet administration tablets may be evenly divided if it is scored, resulting into two equal halves. Some of the tablet powder gets also generated, but it is generally accepted that it will not have any significant clinical effect. However, even when tablets are split by pharmacists, splitting some medications may end up causing more harm than good effects in form of too fast release of drug, stability issues due direct environmental exposure, Uneven dosage with more medicine in one half than in the other etc. The present work focuses on the regulatory status of the half tablet administration and possible ways which may lead to the safe and efficient breaking of the tablet leading to the cost reduction in case of branded medicines without affecting the safety and efficacy of the medicine.

**Keywords:** Half tablet administration, Clinical effect, Regulatory requirement, Safety and efficacy

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>MONOCLONAL ANTIBODIES IN CANCER THERAPY</b>	<b>SEMINAR</b>
<p><b>Vishal yadav<sup>*</sup> , Vishal Raj Gupta, Rajkamal , Surbhi Rani, Dilip. K. Tiwari</b> Lakshmi Narain College of Pharmacy, Bhopal (M.P.)</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Monoclonal antibody-based treatment of cancer has been established as one of the most successful therapeutic strategies for both hematologic malignancies and solid tumours in the last 20 years. The initial combining of serological techniques for cancer cell surface antigen discovery with hybridoma technology led to a series of landmark clinical trials that paved the way for new generation antibodies and subsequent clinical success. Optimization of anti-tumour immune responses through Fc modifications has also made a major contribution to clinical efficacy. The modulation of immune system interplay with tumour cells through targeting of T cell receptors has emerged as a powerful new therapeutic strategy for tumour therapy and to enhance cancer vaccine efficacy. This commentary will provide an overview of the history of antibody identification of tumour surface antigens, antigenic targets suitable for antibody-based therapy, antibody mechanisms of action, and recent successes of antibodies in the clinic.</p> <p><b>Keywords:</b> Antibody Identification, Tumour Surface Antigens, Antigenic Targets, Tumour Therapy.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH</b> (Peoples Institute of Pharmacy and Research Centre) A constituent unit of <b>PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**IP IMPLICATIONS IN STEM CELL RESEARCH: IN INDIA AND OTHER  
COUNTRIES**

**SEMINAR**

**Anshu Sharma**

B.N. College of Pharmacy, B. N. University, Udaipur (Rajasthan)

**Intellectual  
Property Rights**

## **ABSTRACT:**

Stem cells are a class of biological cells that are characterized by their ability to replicate and develop into the various tissue types of the body. The interest in embryonic stem cells is based on their ability to create or regenerate human tissues and organs from cells prepared in a lab. When exposed to the right biological conditions, these cells have the potential to heal damaged heart and spinal cord tissue, reverse diabetes, and treat a range of cancers. Intellectual property rights (and especially patents) across the life sciences, IPRs around stem cell technologies are currently an area of significant uncertainty/ debate/ dispute. The clinical research environment in India is currently undergoing a tremendous flux, with regulators coming under severe criticism from the press, public and the elected government. The Ethical guidelines for biomedical research on human subjects were published by the Indian Council for Medical Research (ICMR) in 2000. However, their recommendations are non-binding and scandals continue to emerge.

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# ABSTRACT

**NATIONAL**

**CHEMICAL COMPOUNDS FROM *CARRISA CARANDAS*-A REVIEW**

**SEMINAR**

**Hemraj Vashist, Vivek Sharma**

L.R Institute of Pharmacy Solan, Oachghat HP- 173223

Govt. College of Pharmacy, Rohru, HP-171207

**Intellectual  
Property Rights**

## ABSTRACT:

*Carissa carandas* is a species of flowering shrub in the dogbane family (Apocynaceae). Recently its name has been changed to *C. congesta*. Its leaf decoction is used in case of intermittent fever. The unripe fruits of the plant are used as an astringent. Its roots are used as bitter stomachic, vermifuge. It is an ingredient several preparation for itches. Small amount of salicylic acid has also been reported in the plant. Because of the presence of cardiac glycosides it is reported to lower slight BP. *Carrisa caranda* is an indigenous plant of himalayan region known for its fruits mainly. The ripe fruit is rich in phenol compounds triterpenoids, flavonoids, vitamins, peptides and sugars. Not only the fruit but the whole plant is known to have several valuable medicinal properties against several of the plant is because of several secondary metabolites present in the plant. Many terpenoids particularly mixture of sesquiterpenoids mainly carissone and caridone as a novel type of c-31 terpenoids have been reported from *C. carandas*. Other products include pentacyclic triterpenoids carissin.

**Keywords:** *Carissa carandas*, astringent, astringent, cardiac glycosides, sesquiterpenoids.

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>LIVER CIRRHOSIS AND HERBAL REMEDIES</b>	<b>SEMINAR</b>
<b>Vivek Kumar, Anindya Goswami, Neelesh Malviya</b> Smriti College of Pharmaceutical Education, Indore	<b>Intellectual Property Rights</b>
<b>ABSTRACT:</b> <p>Cirrhosis is a difficulty of liver disease which involves loss of liver cells and permanent scarring of the liver. Alcohol and viral hepatitis B and C are general causes of cirrhosis, even though there are loads of other causes. Cirrhosis can cause weakness, hammering of appetite, easy stain, jaundice, burning, and weariness. Management of cirrhosis is considered to prevent advance damage to the liver, take care of difficulties of cirrhosis, and preventing or detecting liver cancer early on. Transplantation of the liver is an imperative alternative for treating patients with advanced cirrhosis. A good no of researchers studied the effects of some herbal remedies and found that some plants effectively helped improve patients suffering from cirrhosis of the liver. The available herbal remedies for cirrhosis that may be helpful in halting this disease progression usually have anti-inflammatory properties. It is critical that herbal remedies for cirrhosis should be used only by patients that have first consulted with a physician or other health care provider.</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018</b></p> <p align="center"><b>MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**ENTREPRENEURSHIP DEVELOPMENT & KEY BUSINESS CONCERNS IN  
COMMERCIALIZING INTELLECTUAL PROPERTY RIGHTS**

**SEMINAR**

**Raviraj Baghel, Veersingh Yadav, Vishal Solanki, kuldeep Patel,  
Deepti Jain**

School of Pharmaceutical Sciences RGPV Bhopal MP

**Intellectual  
Property Rights**

## **ABSTRACT:**

Intellectual Property Rights (IPR) have become a significant factor in both creating and using ideas that are translated into knowledge and inventions to promote innovation and economic growth. Intellectual property law and competition law are both necessary for the efficient operation of the Market place. Intellectual property laws provide property rights comparable to those of other kinds of private property, thereby providing incentives for owners to invest in creating and developing intellectual property and encouraging the efficient use and dissemination of the property within the marketplace. Competition and intellectual property law are closely linked, as intellectual property law rewards innovation by granting exclusive rights, the competition law ensures that companies do not restrict freedom to compete or exploit market power with anti-competitive consequences. This article reveals the laws dealing with restrictive trade practices in India are contained under the Patents Act and the Competition Act. We also focus on licensing arrangements raise concerns under the competition laws if they are likely to affect adversely the prices, quantities, qualities, or varieties of goods and services either currently or potentially available. Licensing agreements may also have anti-competitive effects, because such agreements can reduce potential competition in the technology and innovation markets, which would have existed in the absence of the agreement. The study lesson familiarizes the students with the key business issues that are involved in commercializing intellectual property rights besides legal auditing of intellectual property.

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# ABSTRACT

**NATIONAL**

**CHALLENGES IN REGULATION OF HERBAL DRUGS IN INDIA**

**SEMINAR**

**Shreya Khanna, Rashi Bajaj**

School of Pharmacy and Research, Peoples University, Bhopal

**Intellectual  
Property Rights**

## **ABSTRACT:**

Herbal drugs are plant or part of plants that have been converted into phytopharmaceuticals by simply means of processes involving collection or harvesting, drying and storage. There are many advantages of Herbal drugs like low cost of production, effective with chronic condition, wide spread availability. But there are some disadvantages as well such as lack of dosage instruction, poison risk associated with wild herbs, can interact with other drugs, inappropriate for many condition, some are not safe to use.

There are many regulatory authorities in India that regulate Herbal drugs such as AYUSH, Drug and Cosmetic Act 1940, etc. As the Herbal preparations contain either single herbs or as collections of herbs in composite formulae. This may be the main reason why quality control of oriental herbal drugs is more difficult than that of western drug. There are many regulatory issues for herbal drugs such as standardization challenges, safety challenges, quality challenges, clinical trials challenges, pharmacovigilance challenges. To overcome all these challenges one must promote AYUSH education, popularization and promotion of Indian system of medicine in foreign countries, awareness regarding GAP, GACP, and GSP among growers and manufacturers, supply of standardized and certified raw materials.

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# ABSTRACT

**NATIONAL**

**INTELLECTUAL PROPERTY RIGHTS**

**SEMINAR**

**Rajesh Kumar Kushwaha**  
Alkem Pharmaceuticals, Mumbai.

**Intellectual  
Property Rights**

## **ABSTRACT:**

Recently, intellectual property rights (IPRs) has become one of the hottest, most significant issues of trade negotiations. Despite the continued claim that IPRs facilitate research activities and encourage technology transfer, the impact of IPRs on socio-economic development process of developing countries has evidently reflected in many areas, including health, agriculture and education. IPRs will no doubt continue to have a significant impact on developing countries for many years to come.

Intellectual property, very broadly, means the legal rights which result from intellectual activity in the industrial, scientific, literary and artistic fields. Countries have laws to protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and the rights of the public in access to those creations. The second is to promote, as a deliberate act of Government policy, creativity and the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development. IPR is very important for economic growth of a company. Awarding sole rights to the inventor gives him the privilege of reaping the profits without any division.

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# ABSTRACT

**NATIONAL**

## NECESSITY OF TRIAZOLE HETEROCYCLIC NUCLEUS IN NEW DRUG DEVELOPMENT AND THERAPY

**SEMINAR**

**Jagdish K Sahu**

Faculty of Pharmacy, IFTM University, Moradabad, 244102, Uttar Pradesh, India

**Intellectual  
Property Rights**

### ABSTRACT:

Triazoles have occupied a distinctive position in heterocyclic chemistry, and its derivatives have attracted extensive interests in current age for their useful properties in chemistry and pharmacology. Triazole -containing drugs have a broader scope in curing various characters in clinical medicine. Triazole is nitrogen-containing heterocyclic ring which possesses biological and pharmaceutical importance. Triazole is a unique scaffold in the field of new drug investigation. Triazole is present in the structure of many synthetic drug molecules, that is, alprazolam, triazolam, estazolam (hypnotic, sedative, tranquilizer), trazodone (antidepressant, anxiolytic), trapidil (hypotensive), terconazole (antifungal), hexaconazole (antifungal), etizolam (amnesic, anxiolytic, anticonvulsant, hypnotic, sedative and skeletal muscle relaxant), rilmafazone (hypnotic, anxiolytic) and rizatriptan (antimigraine agent). There are several methods used for the synthesis of triazole-containing compounds, and also their various structure reactions offer enormous scope in the field of medicinal chemistry.

**Keywords:** Triazole, drug development, antibacterial, antifungal

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>INTELLECTUAL PROPERTY PERSPECTIVES; PATENT DATABASES &amp; PATENT INFORMATION SYSTEM</b>	<b>SEMINAR</b>
<p align="center"><b>Nitin Sharma, Vivek Singh Rajput, Poonam Sharma, Deepti Jain</b> School of Pharmaceutical Sciences RGPV Bhopal MP</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Government of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion established Patent Information System (PIS), in the year 1980 with the two objectives. First, to obtain and maintain a comprehensive collection of patent specification and patent related literature on a worldwide basis to meet the needs for technological information, of various users in R&amp;D establishments, Government Organizations, Industries, Business, Inventors and other users. Second to provide technological information contained in patents through, search services and patent copy supply service. The Office of the Controller General of Patents, Designs &amp; Trade Marks (CGPDTM) is responsible for the administration of Patents Act, 1970, Designs Act, 2000, The Trade Marks Act, 1999 and Geographical Indications of Goods (Registration and Protection) Act, 1999 through its Intellectual Property Offices located at Mumbai, Delhi, Kolkata, Chennai and Ahmedabad. Many national and regional patent offices provide free online access to their own patent collections as well as to selected patent documents from other offices. A number of commercial and non-profit providers also offer free patent information databases online. The study lesson familiarizes the students with the Intellectual Property Office in India; importance of patent information in business development; patent search and its importance, and the various databases available for conducting patent search.</p> <p><b>Keywords:</b> Intellectual Property Rights, TRIPS, patents, copyrights, trademarks act 1970, Geographical Indications.</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018</b></p> <p align="center"><b>MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**A STUDY ON THE HISTORICAL ASPECT OF COPYRIGHT LAW AND  
RELATED RIGHTS IN INDIA**

**SEMINAR**

**Nishita Singh, Pratyaksh Agrawal, Bushra Siddiqui, Raviraj Baghel,  
Dr. Deepti Jain**

School of Pharmaceutical Sciences RGPV Bhopal MP

**Intellectual  
Property Rights**

## ABSTRACT

Copyright is a well-recognized form of property right which had its roots in the common law system and subsequently came to be governed by the national laws in each country. It is a form of intellectual property which protects original works of authorship such as literary (books, periodicals, computer programs, tables, and compilations), dramatic, musical, artistic, cinematographic, and sound recording, etc. Copyright ensures certain minimum safeguards of the rights of authors over their creations, thereby protecting and rewarding creativity. The history of copyright law in India can be traced back to its colonial era under the British Empire. The Copyright Act 1957 was the first post-independence copyright legislation in India and the law has been amended six times since 1957. The most recent amendment was in the year 2012, through the Copyright (Amendment) Act 2012. India is a member of most of the important international conventions governing the area of copyright law, including the Berne Convention of 1886 (as modified at Paris in 1971), the Universal Copyright Convention of 1951, the Rome Convention of 1961 and the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). In this presentation we covers nature of Copyright and works in which Copyrights subsist. We also covers in shorts are author & ownership of copyright, Rights Conferred by Copyright, Assignment, Transmission, Licensing of Copyrights, Remedies & Actions for Infringement of Copyrights and Copyright Societies, Office, Board, Registration of Copyrights & Appeals.

**Keyword** – Intellectual Property Rights, TRIPS, patents, copyrights, trademarks, the patent act 1970. Amendments

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>INTELLECTUAL PROPERTY RIGHTS IN INDIA: CONCEPT, INITIATION, IMPLEMENTS AND MAJOR AMENDMENTS</b>	<b>SEMINAR</b>
<p align="center"><b>Ankita Raikwar, Shashi Ranjan, Rahul Chandravanshi, Raviraj Baghel, Rahul Maurya, Deepti Jain</b> School of Pharmaceutical Sciences RGPV Bhopal MP</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Intellectual property, very broadly, means the legal property which results from intellectual activity in the industrial, scientific and artistic fields. Countries have laws to protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and such rights of the public in access to those creations. The second is to promote, as a deliberate act of government policy, creativity and the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development. IP is traditionally divided into two branches: “industrial property and copyright”. The convention establishing the World Intellectual Property Organization (WIPO) concluded in Stockholm on July 14, 7 1967 Article 2(viii) provides that intellectual property shall include rights relating to: 1) literary, artistic and scientific works: 2) performances of performing artists, phonograms and broadcasts; 3) Inventions in all fields of human behavior; 4) Scientific discoveries; 5) Industrial designs, its commitments to the WTO under the Trade Related Intellectual Property Rights Agreement (TRIPS), the Government of India undertook a series of steps, to conform India IP legislation to acceptable international standards.</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018</b></p> <p align="center"><b>MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>IMPACT OF MAJOR AMENDMENTS OF PATENT ACT– 2005 ON DEVELOPING COUNTRIES: AS PER A PHARMACIST</b>	<b>SEMINAR</b>
<p><b>Mandlawadiya M, Kevat M, Khan A, Pandey S.P., Chandel H. S</b> Truba Institute of Pharmacy, Bhopal</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Existence of TRIPS agreement in 1995 has bring almost every country with different un-similarities, at the common platform and opened the door, wide enough for the entrance of major pharma players in various markets of words with larger benefits in terms of increased economic growth with major amendments in the patent law. But at the same time, this system has also putted several limitations for the poor and developing countries.</p> <p>As we all are aware the fact that every government is more and more concerned regarding their public health and every country without a specific law is almost crab, especially in case of health and pharmaceutical sector. So, in the present study, we have planned to find out the impact of amendment (2005) in patent law related to pharmaceutical on word market. We has also included the limitations of developing countries and their remedies too, with regard to the patent amendments 2005.</p> <p><b>Key Words:</b> TRIPS, Patent amendment 2005, Pharma market.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>NANO-EMULSION OF PER-FLUOROCARBONS: POTENTIAL FOR USE AS ARTIFICIAL BLOOD SUBSTITUTE</b>	<b>SEMINAR</b>
<p><b>Gour R K, Khan A., Ahirwar D., Suryavanshi S.</b> Truba Institute of Pharmacy Bhopal</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Blood is essential for good health because the body depends on a steady supply of fuel and oxygen to reach its billions of cells. Nano-emulsions having Per-fluorocarbon has been proven to be good artificial oxygen carriers during the clinical study. Perfluorocarbon nano-emulsions are also proven their efficacy in animal and humans experiments and proven to be well tolerated. This artificial blood substitute may be used in the future in the concept of augmented acute normovolaemic haemodilution. Y this system, low preoperative haemoglobin levels are targeted during pre-operative normo-volaemic haemodilution and increases oxygen delivery during surgery when low endogenous haemoglobin levels are expected. In addition, per-fluorocarbon nano-emulsions may be used in the treatments of diseases with decreased tissue oxygenation such as cerebral or myocardial ischaemia, air embolism and emergency or trauma surgery etc. Present work is focused to check all the possibilities of per-fluorocarbon nano-emulsions in different clinical condition.</p> <p>Key words: Perfluorocarbon nano-emulsion, Artificial blood, Ischaemia.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**IPOMOEA CARNEA: A BOON FOR SKIN DISORDER**

**SEMINAR**

**Rituparna Jana, Neeta Rai Shivhare, Neelima Mishra, Dr  
A.K.Singhai**

Lakshmi Narain College of Pharmacy, Bhopal

**Intellectual  
Property Rights**

## ABSTRACT:

Ipomoea carnea is commonly known as the pink morning glory is a flowering plant heart-shaped leaves that are rich green in colour belongs to family convolvulaceae. It occurs throughout the tropical and subtropical regions of the world. It is an annual and perennial herbaceous plants, shrubs and small trees. This flowering plant has 6–9 inches (15–23 cm) long. It can be easily grown from seeds which are toxic in nature and it can be hazardous for human beings.

I. Carnea contains steroids, carbohydrates, alkaloids, phenolic compounds, saponins, xanthoproteins and flavonoids. Different extracts of I. carnea plant having anti-bacterial, anti-fungal, anti-oxidant, anti-cancer, anti-convulsant, immunomodulatory, anti-diabetic, hepatoprotective, anti-inflammatory, anxiolytic, sedative and wound healing activities. The aim of present study is to highlight that the milky juice of plant has been used for the treatment of Leucoderma

**Keywords:** Ipomoea carnea, Leucoderma, hepatoprotective, immunomodulatory.

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>THE MEDICINAL EFFECTS OF ABELMOSCHUS ESCULENTUS ON TYPE 2 DIABETES</b>	<b>SEMINAR</b>
<b>Neeta Rai Shivhare ,Siddharth Satyan,Rama Shukla, Dr A.K.Singhai</b> Department of Pharmaceutics, Lakshmi Narain College of pharmacy, Bhopal (M.P)	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Abelmoschus esculentus L., is commonly known as lady's fingers, bhindi, okra or gumbo, is a flowering plant belongs to family malvaceae. The geographical origin of okra is South Asian and West African origins. The plant is cultivated in tropical, subtropical and warm temperature regions around the world. The species is an annual or perennial, growing to 2 m tall. Okra is a popular health food due to its high fiber, vitamin C, and folate content. It is also a good source of calcium and potassium. In addition, the plant has been used medicinally in treatment of several disorders like Anti-cancer, Antimicrobial, Anti-ulcer activity, Antioxidant property. The aim of present study is to highlight the reduction of blood sugar for the treatment of diabetes.</p> <p><b>Keywords:</b> Abelmoschus esculentus, okra, Antioxidant, folate, Anti-ulcer activity</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>HEPATOPROTECTIVE ACTIVITY OF ETHANOLIC EXTRACTS OF SARCOSTEMMA ACIDUM</b>	<b>SEMINAR</b>
<b>Rohit Tiwari, Parivesh Sakle, Sanjeev Ranjan, Dilip. K. Tiwari</b> Lakshmi Narain College of Pharmacy, Bhopal (M.P)	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>The present study aims to evaluate the hepatoprotective activity of Sarcostemma acidum. Hepatoprotective activity is studied by carbon tetrachloride (CCl<sub>4</sub>)-induced liver damage in albino rats. The degree of protection in this activity has been measured by using biochemical parameters such as serum glutamate oxaloacetate transaminase (SGOT), serum glutamate pyruvate transaminase (SGPT), alkaline phosphatase (ALP), total bilirubin, lipid peroxidation in liver tissue homogenate. The results suggest that the ethanol stem extract of Sarcostemma acidum at the doses 50, and 100 mg/kg and reference standard silymarin treated group produced significant (p &lt;0.001) hepatoprotection against CCl<sub>4</sub>-induced liver damage by decreasing the activities of serum enzymes, bilirubin and lipid peroxidation.. Histopathological studies further substantiate the protective effect of the extract. It was concluded that ethanolic stem extract of Sarcostemma acidum showed effective hepatoprotective activity.</p> <p><b>Keywords:</b> Carbon Tetrachloride, Hepatoprotective, Silymarin, Sarcostemma acidum</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>NANOPHOTOSENSITIZERS: SYNTHESIS AND CHARACTERIZATION OF PORPHYRIN–NOBLE METAL NANOPARTICLE CONJUGATES</b>	<b>SEMINAR</b>
<p><b>Aditya pandey, Ayushi Choudha, Amir Faizal, Dilip. K. Tiwari</b> Lakshmi Narain College of Pharmacy, Bhopal (M.P)</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>A methodology to enhance biological delivery of photosensitizers by incorporating them into nanomaterials has been developed. In order to prepare photosensitizer nanoconjugates as biocompatible and selective probes, initially, bioconjugatable porphyrinic photosensitizers were prepared through rational routes. The porphyrins with carboxyl groups (as conjugatable handles) were successfully attached on the surface of the bioinspired nanoparticles (through a stable ester bond formation) affording hydrophilic and biocompatible nanophotosensitizers. The loading efficiency of the photosensitizer into nanomaterials was found to be 10–16%. Given their biocompatibility and efficient loading on nanoparticles, the photosensitizers prepared in this study could find use in photodynamic therapy and dual photodynamic–photothermal therapy.</p> <p><b>Keywords:</b> Photosensitizers, Nanomaterials, Photothermal Therapy, Porphyrins</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>ANTIFUNGAL ACTIVITY OF IMIDAZOLE AND TRIAZOLE</b>	<b>SEMINAR</b>
<b>Shraddha Soniya, Arihant Jain, Zishan Mohd., Govind nayak, Dilip K. Tiwari</b> Lakshmi Narain College of Pharmacy, Bhopal	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Imidazole and triazole are presently the most extensively used antifungal drugs. The imidazoles and triazoles have broad spectrum antifungal activity covering dermatophytes, candida, other fungi involved in deep mycosis, nocardia, some gram positive and anaerobic bacteria. Triazole and imidazole are incorporated into the structure of many antifungal compounds. In this study a novel series of 1,2,4-triazole, imidazole, benzoimidazole, and benzotriazole derivatives was designed as inhibitors of cytochrome P450 14a-demethylase(14DM). These structures were docked into the active site of MT-CYP51, using autodock program. Four imidazole derivatives they are clotrimazole, econazole, miconazole, ketoconazole(KTZ) and the two derivatives of triazole that is fluconazole, itraconazole out of which the ketoconazole and itraconazole is orally taken drug and is very effective.</p> <p><b>Keywords:</b> Antifungal, Dermatophytes, Dermatophytes, MT-CYP51</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

## PHYTOMEDICINAL APPROACHES TO THE CONTROL OF VASCULAR DEMENTIA

**SEMINAR**

**Dilip Tiwari, Neeraj Upmanyu**  
School of Pharmacy, Peoples University, Bhopal

**Intellectual  
Property Rights**

### ABSTRACT:

Dementia is a leading cause of mental and physical dysfunction. Vascular dementia (VaD) is the second most common cause of dementia after Alzheimer's disease (AD) constituting 10–15% of the dementia population. VaD is characterized clinically by cognitive impairment and pathologically by the deposition of  $\beta$  amyloid plaques and neurofibrillary tangles, and the degeneration of the cholinergic basal forebrain. Oxidative stress may underlie the progressive neurodegeneration characteristic of VaD. Brain structures supporting memory are uniquely sensitive to oxidative stress due to their elevated demand for oxygen. The neurodegenerative process in VaD may involve  $\beta$  amyloid toxicity. Herbal drugs containing antioxidant like bioflavonoids, flavanoglycosides, curcumin, quercetin, ginkgosides, selegiline, estrogens, and statins, as well as behavioral and lifestyle changes have been explored as therapeutic options.

**Keywords:** Vascular dementia, Neurofibrillary, Cognitive, Oxidative stress

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# ABSTRACT

**NATIONAL**

**INTELLECTUAL PROPERTY: USES OF PATENT RENEWAL AND  
APPLICATION DATA**

**SEMINAR**

**Ankit Namdev**

School of Pharmacy and Research, PU, Bhopal (M.P)

**Intellectual  
Property Rights**

## **ABSTRACT:**

The calculation of patents is very imperfect measures of innovative output. How does this letter discuss. Additional Data - Number of countries to renew a patent and number of countries. The demand for protection of the same invention has been done - it can be used to improve the counting in the study. A measure of innovation requires a simple renewal based weighting plan. Proposed that can remove half the amount of noise in the number of patents in the form of a measure of innovative output. Paper also shows how this data can be used to estimate the value of ownership rights .In this analysis created by patent laws, the estimated parameter can be used to answer a series. Questions related to the value of the patent. We anticipate how the value of the patent. Under the optional legal rules and renewal fees, and the preservation will vary according to the estimates .Recent progress in the development of international flow of returns from the patent system. The database has increased potential for this type of analysis.

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# ABSTRACT

NATIONAL

A MAGICAL MEDICINAL FRUIT OF PIPER NIGRUM

SEMINAR

**Avinash Pratap Singh, Rama Shukla, Neeta Rai, Manu Singhai, Dr  
Akhlesh K Singhai**

Department of Pharmaceutics, Lakshmi Narain College of Pharmacy, Bhopal,  
India

Intellectual  
Property Rights

## ABSTRACT:

The Black pepper is the fruit of the plant Piper nigrum (P.nigrum) from the Piperaceae family. Black pepper is found largely and is cultivated in Western Ghats of Kerala (Southern India) and Sarawak state in Malaysia. Dried fruit of P. nigrum is known as “The King of the Species” as it gives delicious flavor to dish along with their medicinal properties to cure numerous diseases as well. Herb is commonly used to treat gastrointestinal disorders, malaria, respiratory diseases, cold and cough, skin cancer, scabies, nerve pain and other diseases. It can be used as Anti-apoptotic, Anti-microbial, Anti-pyretic, Anti-analgesics, Anti-tumor, Anti-depressant, Anti-inflammatory, Anti-arthritic, Anti-thyroid, Anti-platelet, Anti-fungal, Anti-diarrheal, Immunomodulatory, Larvicidal activity. This review paper mainly focused on recent advancement in variety of Pepper, biological value and medicinal uses of piper nigrum for future aspects.

**Keywords:** Piper nigrum, Black pepper, King of the species, Peppercorn, Piperine, Biological activity.

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>QUALITY AND RERULATORY AFFAIRS OF HERBAL DRUGS</b>	<b>SEMINAR</b>
<p align="center"><b>Nayna Singhai</b> School of Pharmacy and Research, PU, Bhopal (M.P)</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>In the developing countries, Herbal medicine is still the mainstay of about 75-80% of the world population, for primarily health care. It is generally, believed that Herbal drugs does not have any side effects besides being cheap and locally available. Herbal remedies forms a potpourri that ranges from plants that people collect themselves and then take for health reasons to approved medical products. According to WHO (World health organization), the use of Herbal remedies throughout the world exceeds two to three times more than that of convectional drugs. Traditional Herbal products are heterogenous in nature. They impose a number of challenge to quality control, quality assurance and the regulatory process. To gain public trust and to bring herbal products into mainstream of today healthcare system, the researchers, the manufacturers, and regulatory agencies, must apply rigorous scientific methodology and clinical trials to insure the quality and lot to lot consistency of traditional herbal products. Manufacturers of the herbal products must adhere to the requirement of GMP (Good manufacturing practices) and preclinical testing before these products can be tested on humans.</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018</b></p> <p align="center"><b>MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>A NOVEL REVERSE PHASE (UPLC) ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF PARACETAMOL AND ACECLOFENAC IN DOSAGE</b>	<b>SEMINAR</b>
<p align="center"><b>Ramsaneh Raghuwanshi, Dr. Ashish Acharya, Dr. Surendra Jain</b> Sagar Institute of Research &amp; Technology Pharmacy, Bhopal</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Development and validation of LC method for simultaneous estimation of combination of Paracetamol and Aceclofenac in pharmaceutical dosage form. The chromatographic separation was performed on UPLC Intersil BDS C18 (250mm×4.6 mm and 3µm) column using isocratic elution of methanol : ammonium acetate buffer (pH3.4) adjusted with triethylamine ( 80:20 ) at flow rate 1ml/min with ambient temperature . The peak intensity of PCM and ACF observed at λ 248 and 278 respectively both drug observed at λ 265nm with UV detection. The retention time of PCM and ACF was found 2.9 and 5.2 respectively and simultaneous estimation of both drug observed at 265 nm. The linearity range of PCM and ACF were found 10-50µg/ml and 2-10 µg/ml respectively. This method was validated for accuracy, linearity, precision, robustness. Furthermore no interference was observed with extra pharmacopoeial dosage form for simultaneous estimation of combination of PCM and ACF.</p> <p><b>Keyword:</b> Paracetamol(PCM), Aceclofenac (ACF), UPLC, ICH Guideline, Methanol (MeOH) , RP-LC</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018</b></p> <p align="center"><b>MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>INTELLECTUAL PROPERTY RIGHT OF HERBAL DRUGS IN INDIA</b>	<b>SEMINAR</b>
<p><b>Raj Soni, Gaurav Pandey, Mukul Kumar</b></p> <p>SCHOOL OF PHARMACY AND RESEARCH, BHOPAL [M.P]</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>A category of property that includes intangible creation of the human intellect and primarily encompasses copyright, patent, design and trademark is known as intellectual property right. Despite the continued claim the IPRs facilitate research activities and encourage technology transfer, the impact of IPRs on socio economic developments process of developing countries have evidently reflect in many areas, including health, agriculture and education ours discussion is about herbal drugs patent in India. A chemical patent, pharmaceutical patent or drug patent is a patent for an invention in the chemical or pharmaceutical industries which are obtained from herbal drugs. Intellectual property rights of herbals drugs are regulated by Indian herbal sector by analyzing the patenting tends in India, US and Europe or in various countries by their herbal regulating authorities. The goal of this project is to aware peoples about Indian herbal patent drugs and invention of new species of plants. There are various plants which are medicinally used all over the world are the patent of India like turmeric, Neem, Brinjal, Bittergourd, Jamun etc.</p> <p><b>Keywords:</b> IPR, Patent, Herbal drugs, Jamun, Brinjal.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b></p> <p><b>MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE'S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**REVIEW ON INTELLECTUAL PROPERTY RIGHTS FOR NEW DRUGS**

**SEMINAR**

**Durga Pandey<sup>1</sup>, Girijesh Pandey<sup>2</sup>, Surendra Jain<sup>3</sup>, Deepti Jain<sup>1</sup>**

1School of Pharmaceutical Sciences, RGPV. Bhopal, M. P.

2TIT- Pharmacy Education and Research. Bhopal, M. P.

3Sagar Institute of Research & Technology-Pharmacy, Bhopal, M.P.

**Intellectual  
Property Rights**

## ABSTRACT:

The major growth drivers for the pharmaceutical industry include developments in healthcare insurance, medical technology, healthcare financing, and improving healthcare access. These innovations lead to discovery of new life-saving drugs and have to be protected through intellectual property rights (IPRs). Patents provide pharma companies exclusive rights to market drugs and prevent others to manufacture and sell. IPR is important for identification, planning, commercialization, and protection of invention in pharma companies. It is also an important tool to protect investment, time, and effort and encourages healthy competition-thus promoting industrial development and economic growth. IPR Provides fair and effective incentive for innovation and Protects pharma companies against potential infringers, Provides strong enforcement tools for defending infringed patents. IPR has a significant impact in the pharma industry from issues ranging from discovering, developing to pricing, distribution, competition mapping, availability, and pricing of new medicines. In a weak IPR protection economy, generic drug manufacturers imitate biopharmaceutical innovations without investing time and money to develop new medicines. As a result, branded drug manufacturers are unable to recoup investments in new drug development, thus finding it difficult to invest in research and development (R&D) of new drugs and costly diseases.

**Keywords:** IPR, New medicines, R and D, Pharmaceutical industry

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# ABSTRACT

**NATIONAL**

**THE REGULATORY AFFAIRS PROFESSION IN INDIA**

**SEMINAR**

**Subhendu S. Mishra**

Gayatri College of Pharmacy, Gayatri Vihar, Jamadarpali, Sambalpur, Odisha

**Intellectual  
Property Rights**

## **ABSTRACT:**

Globally the pharmaceutical and medical device regulatory affairs profession has undergone change in the past few decades. The profession has gone from having a liaising and documenting function which has an important strategic and decision making role within companies. In India regulatory affairs is an evolving profession. Recent changes in drugs and cosmetic act, GCP guidelines (sch. Y), the product patent and new medical device guidelines are loading to it bring recognized as having key role. In the Indian context, regulatory affairs profession has three clear roles, first, they are responsible for liaising with the regulatory authorities with regards to approval applications and other types of license or permit requests. Second, they are also responsible for all in house regulatory documentation and third they have an advisory role with regards to providing information on country specific regulations for colleagues outside India. Regulatory professionals should have a background relevant to the business in which they work. If they are working in R & D, manufacturing or clinical division, they should have knowledge of laws and regulations related to their specific area of work.

**Keywords:** Regulatory affairs, Indian Profession

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<h1>ABSTRACT</h1>	<b>NATIONAL</b>
<b>CONTRIBUTORY PATENT INFRINGEMENT WITH SPECIAL REFERENCE TO PHARMACEUTICAL INDUSTRY</b>	<b>SEMINAR</b>
<p style="text-align: center;"><b>Subhendu S. Mishra</b> Gayatri College of Pharmacy, Gayatri Vihar, Jamadarpali, Sambalpur, Odisha</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>To “infringe” means to encroach upon in the way that violates law or the rights of another. Thus, patent infringement means encroachment upon the domain belonging to a patent owner that is describe by claims of the patient. Because a patent gives its owner the right to exclude other from making, using, offering for sale, selling or importing the patented invention, patent rights may be compared to real property rights. In pharmaceutical sectors, research based pharmaceutical companies invest heavily in the Research and Development (R &amp; D) of new chemical entities. As with any product, infringement of patents and Intellectual Properties Rights (IPR) can cause massive damage not only impacting on sales and revenue streams but also denigrating customer confidence and ultimately the manufacturer’s reputation. The patent infringement maybe if from direct, indirect or contributory infringement. The concept of contributory infringement varies from country to country, also in countries including India, the law is not well developed.</p> <p><b>Keywords:</b> contributory Infringement, Research and Development, IPR.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b> <b>MPCST</b> <b>SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH</b> <b>(Peoples Institute of Pharmacy and Research Centre)</b> <b>A constituent unit of</b> <b>PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>DIVERSIFIED TREATMENT APPLICATIONS OF ACTINOBACTERIA: A POTENTIAL AND FEASIBLE HIGHWAY TO INTELLECTUAL PROPERTY RIGHTS</b>	<b>SEMINAR</b>
<p><b>Dr Richa Jain, Dr Raghvendra Gumashta, Akanksha Pandey, Shubham Richaria</b></p> <p><sup>1</sup>Molecular Biotechnology Laboratory, Centre for Scientific Research and Development, People’s University, Bhopal</p> <p><sup>2</sup> Department of Community Medicine, PCMS &amp; RC, People’s University, Bhopal</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Most of the Actinobacteria possess saprophytic mode of nutrition and are promising decomposers involved in mineralization of complex organic matter, degradation of dead remains, plants, animals, degradation of pollutants and toxicants. In addition, their wide and varied biosynthetic potential to synthesize bioactive molecules like antibiotics, enzyme, inhibitors and other products is an interventional advantage. Among microorganism, these are one of the most widely exploited groups of microorganism in terms of their biotechnological applications and more than 7000 patents have been issued on Actinobacteria, their products and production processes. Metabolic and genetic diversity of these organisms are of special significance and hold immense potential for future researches and resultant patents to address serious problem including health, environmental and production of value added products.</p> <p><b>Keywords:</b> Actinobacteria, biotechnological applications, diversity</p>	<p><b>7TH APRIL 2018 MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>Challenges and regulatory needs of herbal preparations</b>	<b>SEMINAR</b>
<b>Varsha kishore, Satyabhavna Sakre, Divya Ghohil, Rishabh Khandelwal, Anand Kumar</b> School of Pharmacy and Research Centre, People’s University, Bhopal	<b>Intellectual Property Rights</b>
<b>ABSTRACT:</b>  The use of herbal drugs for the prevention and treatment of various health ailments has been in practice from time immemorial. Generally it is believed that the risk associated with herbal drugs is very less, but reports on serious reactions are indicating to the need for development of effective marker systems for isolation and identification of the individual components. Standards for herbal drugs are being developed worldwide but as yet there is no common consensus as to how these should be adopted. Standardization, stability and quality control for herbal drugs are feasible, but difficult to accomplish. Further, the regulation of these drugs is not uniform across countries. There are variations in the methods used across medicine systems and countries in achieving stability and quality control. The present study attempts to identify the evolution of technical standards in manufacturing and the regulatory guideline development for commercialization of herbal drugs.  The governmental body AYUS is working for quality improvement and promotion of herbal product with safety value. Drug and cosmetic act 1940 was controlled the herbal manufacturing especially under the schedule T.  Keywords: Standardization, herbal drugs, regulatory bodies	<b>7<sup>TH</sup> APRIL 2018</b> <b>MPCST</b> <b>SPONSORED</b>  <b>ORGANIZED BY</b>  <b>SCHOOL OF PHARMACY AND RESEARCH</b> <b>(Peoples Institute of Pharmacy and Research Centre)</b> <b>A constituent unit of</b> <b>PEOPLE’S UNIVERSITY,</b> <b>BHOPAL, M.P.</b>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>Preparation and characterization of mucoadhesive chitosan nanospheres for intraocular delivery of insulin</b>	<b>SEMINAR</b>
<p><b>Priyanka Rathore, Surendra Jain, S.K. Jain</b> Sagar Institute of Research and Technology- Pharmacy, Bhopal (M.P.) Department. of Pharmaceutical Sciences, Dr. H.S. Gour University, Sagar</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Mucoadhesive chitosan nanospheres were developed to investigate the potential of system for improving the systemic absorption of insulin following ocular instillation. Insulin loaded-chitosan nanospheres were prepared by ionotropic gelation of chitosan with tripolyphosphate anions. Formulations were characterized for various physicochemical attributes such as size, zeta potential, drug entrapment and mucoadhesion. <i>In vitro</i> drug release and <i>in vitro</i> drug permeation studies were performed. The ability of chitosan nanospheres to enhance the ocular absorption of insulin was investigated in a conscious rabbit model by monitoring plasma glucose level. The <i>in vivo</i> performances showed that chitosan nanospheres are found to be efficient vehicles for the transport of insulin through the ocular route as compared with the conventional dosage form. Chitosan nanospheres were found to provide controlled release of insulin and improves the bioavailability and uptake of insulin across the epithelial layer.</p>	<p><b>7TH APRIL 2018 MPCST SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

**INTELLECTUAL PROPRETY RIGHTS**

**SEMINAR**

**Sunita Choube, Priyanka Shukla, Karesh Prasad**  
People's College of Nursing & Research Centre, P.U., BHOPAL

**Intellectual  
Property Rights**

## **ABSTRACT:**

Intellectual property is a right pervading some material object. The intangible products of a man's brain are as valuable as his land building, goods, money belongings etc. Intellectual Property Rights includes patents, Copyright, Industrial Design Rights, Trademarks, Plant Variety Rights, Trade Dress, Geographical Indications. WIPO (World Intellectual Property Organization) are established in 1967. Worldwide 26 April is celebrated as a world Intellectual Property Day. India is a member of almost all international conventions. Therefore to pass own laws on intellectual property is in the interest of every country. In 1999, a considerate passage of major legislation with regard to protection of individual property rights in harmony with international practice & in compliance with India's obligations under TRIPS (Trade-Related Aspects of Intellectual Property Rights).

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<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>INTELLECTUAL PROPERTY RIGHTS</b>	<b>SEMINAR</b>
<p style="text-align: center;"><b>Sudhir Kumar Ray</b> School Of Pharmacy And Research, People’s University, Bhopal (M.P)</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Intellectual property rights is termed as inventions, ideas and creative expressions construct on which there is a public willingness to grant the status of property. IPR provide complete rights to the inventors or creators of that property, in order to enable them to credit commercial benefits from their creative efforts or reputation. There are various types of intellectual property protection like copyright, trademark, patent, etc. Patent is an identification for an invention, which satisfies the standard of global novelty and industrial application. IPR is requirement for better identification, planning, commercialization, rendering, and protection of invention or creativity. Each industry should develop its own IPR policies, management style, strategies and depending on its area of specialty. Pharmaceutical industry currently has an evolving IPR strategy requiring a better focus and approach in the coming period.</p> <p><b>Keywords:</b> Intellectual property, license, patent, drug, pharmaceutical.</p>	<p><b>7<sup>TH</sup> APRIL 2018</b> <b>MPCST</b> <b>SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH</b> <b>(Peoples Institute of Pharmacy and Research Centre)</b> <b>A constituent unit of</b> <b>PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>INTELLECTUAL PROPERTY RIGHTS IN PHARMACEUTICAL</b>	<b>SEMINAR</b>
<p align="center"><b>Nargish Bano</b> School of Pharmacy and Research, People’s University,Bhopal.</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>Intellectual property right (IPR) with the rapid advancement of science and technology the pharmaceutical industry has been flourishing the market with life saving drugs. Intellectual property right of pharmaceutical is governed by patent law. Intellectual property rights (IPR) have been determine as invention, ideas, creative expressions based on which there is a public willingness to bestow the status of property. IPR they provide exclusive right to the invention or creativity of that property. So that they enable them to reap commercial benefit from there creative effort. In this way there are several types of IPR like patent, copyright, trademark etc. So here patent is an recognition for an invention which fulfill. The criteria of global novelty it provided better identification, planning commercialization, rendering of prerequisite in IPR. Even industry must have its own IPR policies management style and strategies depending upon its specialty. Finally in this way pharmaceutical industry currently has an evolving IPR strategy requiring for a better focus and approach in coming future.</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018 MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>TRADEMARK</b>	<b>SEMINAR</b>
<p align="center"><b>Mayank Saxena</b> School of Pharmacy and Research, People’s University, Bhopal.</p>	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>A trademark, trade mark, or trade-mark is a recognizable sign, design, or expression which identifies products or services of a particular source from those of others, although trademarks used to identify services are usually called service marks. A trademark is typically a name, word, phrase, logo, symbol, design, image, or a combination of these elements (the "trademark symbol", which is the letters "TM" in superscript, for an unregistered trademark, a mark used to promote or brand goods). The trademark owner can be an individual, business organization, or any legal entity. A trademark may be located on a package, a voucher, a label, or on the product itself. A trademark identifies the brand owner of a particular product or service. The owner of a trademark may pursue legal action against trademark infringement. Most countries require formal registration of a trademark as a precondition for pursuing this type of action. When a trademark is used in relation to services rather than products, it may sometimes be called a service mark, particularly in the United States.</p>	<p align="center"><b>7<sup>TH</sup> APRIL 2018 MPCST SPONSORED</b></p> <p align="center"><b>ORGANIZED BY</b></p> <p align="center"><b>SCHOOL OF PHARMACY AND RESEARCH (Peoples Institute of Pharmacy and Research Centre) A constituent unit of PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

<b>ABSTRACT</b>	<b>NATIONAL</b>
<b>Intellectual Property Rights in India: Preparation of patent documents &amp; Infringement</b>	<b>SEMINAR</b>
<b>Akshat Shukla, Vicky Anthony, Raviraj Baghel, Ramsingh Bishnoi, Deepti Jain</b> School of Pharmaceutical Sciences RGPV Bhopal M.P.	<b>Intellectual Property Rights</b>
<p><b>ABSTRACT:</b></p> <p>A patent application memorializes the agreement between the inventor and the government office that results in the issuance of a patent. Accordingly, a patent application is in many ways like a contract. Writing a high-quality patent application is important because it sets out in a clear fashion the terms by which the patent owner and others will be bound. In this sense, drafting a patent application is different from writing a scientific paper. As the patent document contains technical subject matter, it will also bear some similarities to a scientific or technical paper, although it does not usually need to rise to the level of a blueprint for making invention protected by the patent. The issued patent will be reviewed over the years by public officials such as patent examiners and judges and business partners. Thus, the patent application should be drafted with these important audiences in mind. Patent law. In this review we highlight procedure of documents, the exclusive rights of a patent holder have been provided protection under the Patents Act, 1970 and in the event of any violation of these rights the patentee can file a suit in the appropriate court.</p> <p>Keyword – Intellectual Property Rights, IPAB, The patent act 1970 and 1972, Infringement</p>	<p><b>7<sup>TH</sup> APRIL 2018</b>  <b>MPCST</b>  <b>SPONSORED</b></p> <p><b>ORGANIZED BY</b></p> <p><b>SCHOOL OF PHARMACY AND RESEARCH</b>  <b>(Peoples Institute of Pharmacy and Research Centre)</b>  <b>A constituent unit of</b>  <b>PEOPLE’S UNIVERSITY, BHOPAL, M.P.</b></p>

# ABSTRACT

**NATIONAL**

***In vitro* antileishmanial activity of liposomal formulation of artesunate against *Leishmania donovani*.**

**SEMINAR**

**Atul Tripathi, Bina Gidwani, Amber Vyas\***

University Institute of Pharmacy · Pt. Ravishankar Shukla University, Raipur, C.G.

**Intellectual  
Property Rights**

## **ABSTRACT:**

### **Objective(s)**

Cutaneous leishmaniasis is a common parasitic disease which is endemic in some parts of the world. *In vitro* and *in vivo* studies have shown artemisinin efficacy on some *Leishmania* species. Because of structural similarity between artesunate and artemisinin and efficacy of artesunate against intracellular organisms and due to the absence of previous studies in this respect, we decided to evaluate the efficacy of artesunate against promastigotes of *L. donovani* *in vitro*. First, liposomal and non-liposomal artesunate were prepared, then both forms of the drug were incubated with promastigotes for 24 hr in NNN culture media without red phenol in the presence of 5% FCS with different concentrations as follows: 20, 40, 80, 100, 200 and 500 µg/ml. According to the results, artesunate in both liposomal and non-liposomal forms have *in vitro* activity against the promastigotes of *L. donovani*. The concentration of drug that killed 50% of parasites (ED<sub>50</sub>) was 169 and 253.6 µg/ml for liposomal and non-liposomal forms, respectively which shows that lower concentrations of liposomal drug are required to have the same effect as non-liposomal drug and the liposomal form of the drug is more effective than non-liposomal form. Artesunate in both liposomal and non-liposomal forms have *in vitro* activity against the promastigotes of *L. donovani*.

**Keywords:** Artesunate, *Leishmania donovani*, Liposome, Promastigote

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