

भैषज संदेश

**BHAISHAJ
SANDESH**

Newsletter Published By Columbia Institute of Pharmacy, Raipur, (C.G.), India

NBA Accredited UG Programme (B. Pharm.)

CPCSEA (New Delhi) approved lab for breeding & experimentation of small animals

DST-FIST, GOI sponsored PG Programme

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Message from Editor's Desk

Welcome to all the readers.....

We are very happy to introduce volume III of 11th edition of our bimonthly news letter. As we all know, a newsletter mirrors a college- its vision and mission. It also highlights the event, activities, academic progress and achievements of students. Contribution of teachers and other crucial information related to Pharmacy field are also incorporated in it. In this edition, we have tried to capture the last two months activities. I do hope that the newsletter encourages many more including students to use it as a platform to express their creativity. Please feel free to offer any suggestion for improvement.

Sincerely

Dr. Ravindra Pandey

Editorial Board

1. Dr. Ravindra Pandey
Professor, CIP, Raipur
2. Ms. Disha Kesharwani
Assistant Professor, CIP
3. Mr. Gunjan Kalyani
Assistant Professor, CIP
4. Ms. Suman Sen
B. Pharm 4th Sem

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Columbia Institute of Pharmacy

It's a great pleasure to introduce Columbia Institute of Pharmacy, which is Synonymous to ultimate in Pharmacy education in the state of Chhattisgarh. Columbia Institute of Pharmacy, Raipur is run and managed by Jan Pragati Education Society (JPES), established in the year 2003. Innovation excellence & quality are the driving forces on the vision of Columbia Institute of Pharmacy which has a rich proud heritage of academic excellence. The campus is lavishly spread over acres of lush green land and situated 14 km away from the hustle bustle of the city and just 4 km away from Chhattisgarh state assembly setting unabated efforts to add value in Pharma, Engineering and Management education.



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Shining Stars of Institute



Mr. Bhaskar Sahu
B. Pharm 8th Sem
84.18%



Ms. Pooja Sahu
B. Pharm 5rd Sem
82.92%



Mr. Dhanraj Verma
B. Pharm 3rd Sem
80.33%



Ms. Deeksha Koshley
B. Pharm 1st Sem
86.75%

Lecture on Research Matrix

Columbia Institute of Pharmacy organised a lecture on the topic "Research Matrix and Publications" on 11/05/24 for all the faculties and research scholars of Columbia Group of Institutions. The experts were Prof. Shiv Shankar Shukla and Dr. Bina Gidwani. They very efficiently explained about the Research Matrix tools, WoS, Scopus, Google Scholar, UGC-CARE, Journal Finder, Research Publications, impact factor, h index, i10 index, it's calculations and many important points related to research. It will definitely help in enhancing members' research endeavours. The beneficiaries were all the faculty members and research scholars of CIP, CCP, CCN, CCSC and CIET.



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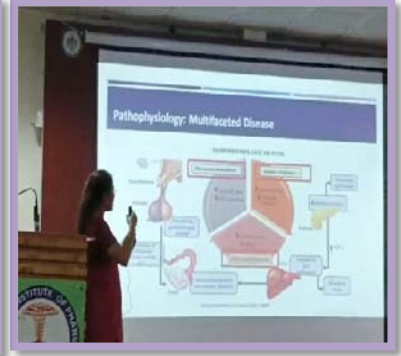
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NSS Activities

Guest Lecture

NSS unit of Columbia Institute of Pharmacy with Mankind Pharma Neo Division organized a workshop on Polycystic Ovary Syndrome (PCOS) on 18/05/2024. The workshop was chaired by renowned Gynaecologist Dr. Manika Agrawal, in her address she elaborated the key facts of PCOS in women and narrated that polycystic ovary syndrome.



World No Smoking Day

NSS unit of Columbia Institute of Pharmacy worked for awareness of the harmful effects associated with smoking on World No Tobacco Day dated 31/05/2024.



World Environment Day Celebration

Columbia Institute of Pharmacy, Raipur, celebrated World Environment Day 2024. An online guest lecture was organized for students on topic "Plantation and No Plastic". The expert was Mrs. Neelata Sharma, Principal, Pt. Kunjlal Dubey Smriti Om Shri Vidyalaya, Kota, Raipur. NSS Volunteers and students planted the saplings of various Plants in nearby of their residential areas.



International Yoga Day Celebration

On occasion of International Yoga Day, dated 21/06/2024 NSS Volunteers of CIP Participated in "State Level Yoga Program" organized by CG Govt at Science Ground Raipur. The yoga experts of the state taught all the participants about the benefits of yoga.

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Saturday Activities

1. Guest lecture

Columbia Institute of Pharmacy organized lecture and demonstration for diploma 1st year and 2nd year students on 1st May 2024 in collaboration with GDC PVT. LTD. In this lecture Ms. Mausami from GDC organization demonstrate information regarding Diploma exit exam. She discussed with students regarding syllabus & importance of exit exam. The lecture was conducted by Mr. Shailendra Kumar Sharma.



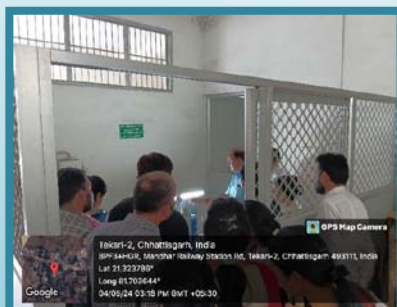
2. Fetch the Journal

Columbia Institute of Pharmacy organized fetch the journal event. In which all the students of our institute took part enthusiastically. All the students of CIP improve their knowledge about research by this event.



3. Workshop on Instruments

Columbia Institute of Pharmacy (CIP) in association with Indian Pharmaceutical Graduate Association (IPGA), Raipur organized workshop on different instruments for faculty members of CIP. The first workshop was on Supercritical fluid extractor and second one was on Disintegration test apparatus. The working process of Supercritical fluid was demonstrated by Prof. Ravindra Kumar Pandey and Disintegration test apparatus was demonstrated by Dr. Rajnikant Panik. During the event all faculty members was present.



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ACHIEVEMENTS

Paper Publication

1. **Dr. Ravindra Kumar Pandey** published a paper titled “Anti-arthritis activity and anti-inflammatory mediators modulation effect of bioactive traditional chaturbeeja churna on arthritis experimental model” in **Current Bioactive Compounds, Bentham Sciences**, June 2024; along with, Dr. Shiv Shankar Shukla, Dr. Bina Gidwani, and Mr. Vikash Sharma.
2. **Dr. Shiv Shankar Shukla** published a paper titled “Fourier transform infra-red spectroscopy: recent advances and prospective in analytical method development and validation in **Research Journal of Pharmacy & Technology**, 25 (11) Nov 2023; along with, Dr. Ravindra Kumar Pandey, Dr. Beena Gidwani, Dr. Swati Dubey, and Mr. Rohan Nene.
3. **Dr. Shiv Shankar Shukla** published a paper titled “Targeted approaches through nanocarriers in leukemia. A review” in “**African Journal of Biological Sciences** 6(2), 2024, along with, Priyanka Pandey and Jayesh Dwivedi.
4. **Dr. Trilochan Satapathy** published a paper titled “**Chimeric Antigen Receptor T-Cells (CAR T-Cells): An Engineered Targeted Therapy for Treatment of Cancer**” in **Journal of Drug Delivery & Therapeutics**. 2024; 14(6):274-286 along with Darshana Rathi and Nikita Patel.
5. **Ms. Shilpa Sahu, Ms. Poonam Sahu, and Ms. Renuka Verma** published a paper titled “Modulation of mesalamine release from enteric coated matrix tablets using natural polysaccharides for localized colonic delivery ”in **Journal of Applied Pharmaceutical Research**, 13(6), along with Prasanta Kumar Choudhary, Gaurishyam Pasa and P. N. Murthy.

Book Publication

1. **Dr. Trilochan Satapathy** published two book entitled “ **Pharmacological and Toxicological Screening methods- I**” and “**Pharmacological and Toxicological Screening methods- II**” , under **JEC publications** along with Dr. V.S. Jilakara, Dr. I Sanmukha, Mr. V. Chaturvedi, Dr. Arpan K Tripathi and Ms. Saloni Goyal.

Book Chapters

1. **Dr. Bina Gidwani**, authored a book chapter titled “**Chapter 9-Nano-biomaterials: A Site-Targeted Approach to Antidiabetic Drug Delivery** in of the book “**Biomaterial-Inspired Nanomedicines for Targeted Therapies**” published by **Springer Nature 2024**, along with, Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla, Dr. Monika Bhairam and Dr. Neha Dubey.
2. **Dr. Bina Gidwani**, authored a book chapter titled “**Fiber and Ceramic Fillers- Based Polymer Composites for Biomedical Engineering**” in of the book published by **Springer Nature 2024**, along with, Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla, and Rahul Kumar.
3. **Dr. Monika Bhairam**, authored a book chapter titled “**Chapter 5-3D Printing for In Vitro and In Vivo Skin Disease Models**” in the book “**3D Printing and Microfluidics in Dermatology: Innovations in Drug Delivery**” published by **Taylor and Francis.2024** along with **Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla and Dr. Bina Gidwani**.
4. **Mr. Gunjan Kalyani**, authored a book chapter titled “**Chapter 6- Exploration of Plant Phytomolecules’ Potential for Antiviral Activity**” published by **Taylor and Francis.2024** along with **Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla and Rupesh Kumar Pandey, Sokindra Kumar, Lubhan Singh, Manish Pathak, Ganesh Kumar Mishra and Priyanka Pandey**.

Patents

1. **Dr. Trilochan Satapathy and Ms. Disha Kesharwani**, and have received, Indian process patent grant, grant for term of 20 years on entitled “**Formulation and evaluation of diacerein and hesperidine loaded nanocarrier system for topical use**” with number: 202221065119 along with Dr. swarnali Das Paul, Dr. Vaibav Tiwari and Shri Shankaracharya Technical Campus.

Conferences Attended

1. **Dr. Monika Bhairam and Disha Kesharwani** participated in 52nd SPSR International Webinar on ‘Nature’s Pharmacy: Tropical Plant-Based Therapies for Skin Disease Management’ organized by the Society of Pharmaceutical Sciences and Research (SPSR) 16th June 2024.

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ACHIEVEMENTS

Students' Achievement

1. **Devshree Sharma**, student of B. Pharmacy III Year, participated and achieved second position in state level IPA National Elocution Competition 2024 organized at Pt. Ravishankar Shukla University, Raipur on 25/05/2024



Details of Funding Agencies

S.No.	Scheme	Scheme	Amount	Deadline	Source of information
1	Indian council of medical research (ICMR)	Human resource development scheme	From 60000 Rs. to 2,50000 Rs. Maximum	15 July 2024	https://www.icmr.gov.in
2	Indian Council of Social Science Research (ICSSR)	Vision Viksit Bharat@2047	Up to 30 Lakh Maximum per year	15 July 2024	www.icssr.org
3	Department of science and technology (DST)	<u>India Japan Science and Technology Cooperation</u>	2,50000 per year	3 September 2024	https://onlinedst.gov.in
4	Department of science and technology (DST)	WISE-SCOPE Fellowship	55000 per Month+HRA+contingency	31 August 2024	https://onlinedst.gov.in
5	Department of Biotechnology (DBT)	(DBT-RA) IN BIOTECHNOLOGY & LIFE SCIENCES	55000 per Month+HRA+contingency	7 August 2024	https://dbtindia.gov.in/

Causerie

Permeation Enhancer for Transdermal Drug Delivery System

Transdermal drug delivery offers a very advantageous route for drug delivery compared with the other routes of drug administration having advantages such as bypassing the hepatic first pass metabolism, and longer duration of action. However, the barrier function of the skin outermost layer, the stratum corneum (SC) is one of the main limitations to it, and for this reason, skin penetration enhancers are gaining the greatest interest in pharmaceutical research. Penetration enhancers help in the permeation of the desired drug (penetrant) through the skin by lowering the impermeability of the skin. Some properties which are desired in permeation enhancers are the must be pharmacologically inert, non-irritating, nontoxic, non-allergic, compatible with drugs and excipients, odourless, tasteless, colourless, and inexpensive and also have good solvent properties. For a transdermal matrix patch to be successful, it relies on the capability of the penetrant (drug) to penetrate into the skin in quantities which is sufficient to maintain therapeutic levels. During formulating transdermal drug delivery system (TDDS), chemical enhancers are used widely as it helps in reducing the permeation barrier properties of the skin. A number of literature mentioned that naturally occurring oils (essential oil and vegetable oil) can be employed as permeation enhancers due to their advantageous properties such as compatibility with drug and excipients, nontoxic, less allergic, and easy availability.

Mr. Gunjan Kalyani

Assistant Professor

Columbia Institute of Pharmacy, Raipur, Chhattisgarh, India

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GPAT Quiz- 20

1. If the absorbance of the drug is recorded as 2, what will be its % transmission?
 - a. 2
 - b. 100
 - c. 0
 - d. None of the above
2. Which of the following is a drug according to Drug and Cosmetic Act 1940?
 - a. Empty Gelatin capsule
 - b. Water for Injection
 - c. Oral polio vaccine
 - d. All of the above
3. Which of the following is not a Cosmetic according to Drug and Cosmetic Act 1940?
 - a. Colgate Toothpaste
 - b. Boroline
 - c. Gudakhu
 - d. All of the above
4. How much Sodium chloride is required to make following solution isotonic?
Rx
Ephedrine Sulphate.....2%
Sterile water q.s.30ml
(Sodium chloride equivalent of ephedrine sulphate =0.23)
 - a. 0.270 gm
 - b. 0.138 gm
 - c. 0.132 gm
 - d. 0.600 gm
5. The parameter used in assessment of bioavailability of a drug is:
 - a. The peak height concentration(C max)
 - b. The time of peak concentration(Tmax)
 - c. The area under blood concentration time curve
 - d. All of the above.
6. Major adverse effect of clonidine is :
 - a. arrhythmia
 - b. Bradycardia
 - c. Drymouth
 - d. sexual dysfunction
7. Group I and Group II Term used Explanation
 - P. Chromophore
 - Q. Blue shift
 - R. Auxochrome
 - S. Red shift
 1. Amino group
 2. Increase in wavelength of absorption
 3. Decrease in wavelength of absorption
 4. Carbonyl group
 - a. P-4, Q-3, R-1, S-2
 - b. P-3, Q-1, R-2, S-4
 - c. P-1, Q-2, R-3, S-4
 - d. P-2, Q-4, R-3, S-1
8. The given antibiotic is an example of ansamycins :
 - a. Roxythromycin
 - b. Adriamycin
 - c. Aureomycin
 - d. Rifamycin
9. Class 100 area is referred to as-----
 - a. Manufacturing area
 - b. Aseptic area
 - c. Clean room
 - d. Warehouse
10. Which vitamin is also known as vitamin H----
 - a. Vitamin B
 - b. Vitamin B5
 - c. Vitamin B9
 - d. Vitamin B7

Answer key Quiz 19: 1.(b) 2. (b) 3.(c) 4.(b) 5.(c) 6.(c) 7.(a) 8.(d) 9.(b) 10.(d)

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Students' Thought

“Shadows”

We run,
We run,
We cannot stand these
shadows!
Give us the sun.
We were not made
For shade,
For heavy shade,
And narrow space of stifling air
That these white things have
made.
We run,
Oh, God,
We run!
We must break through these
shadows,
We must find the sun.

By
Rishi Gupta
B.Pharm. II Sem.

To-morrow's sun

Day is at the gate,
I am risen late;
Clouds laze in the air,
Clouds sleep on the grass;
I have song to spare
Till the shadows pass.
Day is at the noon,
No thread of bow or moon;
Rain is in the air,
Drenched and limp the grass;
I have song to spare
Till the shadows pass.
Day is at the close,
Faith no logic knows;
Rain-clouds blur the air,
All the world is dun;
I have song to spare
Till to-morrow's sun.

By
Nikhil Mishra
B.Pharm. IV Sem.

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New Drug Approved in 2024 Rytelo

Company: Geron corporation.

Approval Status: Approved 06/06/2024

Specific Treatments: Myeloplastic syndrome .

RYTELO is an oligonucleotide telomerase inhibitor indicated for the treatment of adult patients with low- to intermediate-1 risk myelodysplastic syndromes (MDS) with transfusion-dependent anemia requiring 4 or more red blood cell units over 8 weeks who have not responded to or have lost response to or are ineligible for erythropoiesis-stimulating agents (ESA).

Mechanism of Action

It is a telomerase inhibitor that binds to the template region of the RNA component of human telomerase (hTR), inhibits telomerase enzymatic activity and prevents telomere binding.

Side Effects

Myalgia, decreased WBS and platelets, headache.

Inspiring Quotes:-

- "The best way to predict your future is to create it." —Abraham Lincoln.
- "The future belongs to those who believe in the beauty of their dreams."
- "You are braver than you believe, stronger than you seem and smarter than you think."
- "Always Learn from yesterday."

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Less Known Facts About Traditional Food

Pumpkin Seeds Barfi

Pumpkin seeds are edible seeds from pumpkins and other varieties of gourd squash. The seeds are cream colored, flat, and oval with a nutty, slightly sweet flavor. They are roasted, salted, and eaten as a snack in many parts of the world. Pumpkin seeds are highly nutritious and may be associated with health benefits, including improved fertility, better heart health, and enhanced blood sugar control. Pumpkin seeds may be small, but they're packed full of valuable nutrients. Eating only a small amount of them can provide you with a substantial quantity of healthy fats, magnesium, and zinc because of this, pumpkin seeds have been associated with several health benefits, including improved heart health, prostate health, and protection against certain cancers.

Recipe: Roast the pumpkin seeds until crisp and aromatic. Cool and grind to smooth powder. Heat a non stick fry pan. Add in sugar and water. Stir constantly until syrup turns frothy and sticky consistency. At this stage reduce the flame to low and add the powdered seeds. Combine well without forming any lumps. Stir continuously and when the mixture thickens watch carefully. Add ghee and mix well. Switch off the stove. Pour the mixture in a greased tray, sprinkle some roasted seeds on top and let it cool completely. Cut into pieces once reach warm temperature.

Nutritional value:

Nutrients	Per Serving 100g
Carbohydrate	54 g
Protein	19 g
Fat	19g
Energy	446 Cal
Fiber	18 g
Iron	1.32 mg
Potassium	919 mg

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Plants with Health Benefits

Coconut tree (*Cocos nucifera*)

Synonyms: coco, coconut, coco palm and copra

The coconut tree (*Cocos nucifera*) is a member of the palm tree family (Arecaceae) and the only living species of the genus *Cocos*. The term "coconut" (or the archaic "cocoanut") can refer to the whole coconut palm, the seed, or the fruit, which botanically is a drupe, not a nut.

	Scientific classification
	Kingdom: Plantae Order: Ericales Family: Sapotaceae Genus: <i>Madhuca</i> Species: <i>M. longifolia</i>
	Nutrient value per 100g
	Protein: 4.4 g Fat: 0.6 g Minerals: 2.7 g Fiber: 1.7 g Carbohydrate: 72 g Energy: 311 Kcal Calcium: 140 mg Iron: 15 mg

Morphology: *Cocos nucifera* is a large palm, growing up to 30 metres (100 feet) tall, with pinnate leaves 4–6 m (13–20 ft) long, and pinnae 60–90 centimetres (2–3 ft) long; old leaves break away cleanly, leaving the trunk smooth. On fertile soil, a tall coconut palm tree can yield up to 75 fruits per year, but more often yields less than 30. Given proper care and growing conditions, coconut palms produce their first fruit in six to ten years, taking 15 to 20 years to reach peak production.

Chemical composition: coconut consists of a mixture of triglycerides of saturated fatty acids. The oil contain 95% of saturated fatty acids with 8 and 1 carbon atoms. It shows the presence of caprylic acid, capric acid, lauric acid and myristic acid.

Uses: coconut oil is used as dietary product in many of the world. It is useful as a nonaqueous medium for the oral administration of some medication. improved heart health, weight loss and digestion. Coconut is rich in antioxidant, has powerful antibacterial property and even support better blood sugar control.

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Upcoming EVENTS

Saturday Activities

- i. Saturday activities
- ii. Ratha making competition
- iii. Guru Purnima Celebration
- iv. Teachers Day Celebration
- v. World Pharmacist Day Celebration
- vi. Hindi Diwas Celebration

Published News

Columbia Institute of Pharmacy organises workshop on Polycystic Ovary Syndrome

■ Staff Reporter
RAIPUR, June 4

COLUMBIA Institute of Pharmacy (CIP) and the unit of Indian Pharmacy Graduate Association, Chhattisgarh Chapter in association with ManicordPharmaNeo Division organised a workshop on Polycystic Ovary Syndrome (PCOS) in the CIP premises. The workshop was chaired by renowned Gynaecologist Dr Monika Agrawal.

In her address, Dr Monika Agrawal elaborated the key facts of Polycystic Ovary



Dr Monika Agrawal with the faculty members of Columbia College of Pharmacy

Syndrome (PCOS) in women. She narrated that (PCOS) is a common hormonal condition that affects women of reproductive age. It usually starts during adolescence, but symptoms may fluctuate over time.

PCOS can cause hormonal imbalances, irregular periods, excess androgen levels and cysts in the ovaries. Irregular periods, usually with a lack of ovulation, can make it difficult to become pregnant.

Dr Agrawal said that PCOS is a chronic condition and cannot be cured. However, some symptoms can be improved through lifestyle changes, medications and fertility treatments. Symptoms of polycys-

tic ovary syndrome can differ from person to person and may change over time and often occur without a clear trigger.

Secretary of the institution Harjeet Singh Huaa, Professor Dr Shiv Shankar Shankar Shukla, Associate Professor Dr Beena Gidwani, Assistant Professor and Co-ordinator of CIP unit of Indian Pharmacy Graduates Association, Chhattisgarh Chapter Dr Neha Dubey, the female faculty members of the entire course run by Columbia Group as well as large number of female students were present.

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