

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 IV of 9<sup>th</sup> 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. Disha Kesharwani  
Assistant Professor, CIP, Raipur
3. Arushi Bhojwani  
B. Pharm 6<sup>th</sup> 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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## ACHIEVEMENTS

### Paper Publication

1. **Dr. Shiv Shankar Shukla** published a paper titled " Versatile Approaches For Analytical Method Validation Of Anticancer Drugs: A Review " in INDIAN DRUGS 59 (06), June 2022, along with **Dr. Ravindra Kumar Pandey, Ms. Swati Pandey and Ms. Himani Kanwar**.
2. **Dr. Ravindra Kumar Pandey** published a paper titled " Enhanced solubility and bioavailability of ranolazine by solid dispersion method in vitro and in vivo evaluation " in International journal of health sciences, 6(6), 2022, along with **Dr. Shiv Shankar Shukla, Dr. Bina Gidwani and Ms. Monika Bhairam**.

### Other Achievements

1. **Manindra Mahapatra** published a book of Industrial Pharmacy- II, under BS publications, along with **Dr. D. K. Tripathi, and Mr. Ayushmaan Roy**.

### SDP Platelet Donation Awareness Camp

Columbia Institute of Pharmacy, organized an awareness camp for SDP platelet donation and an Entrepreneurship development training on 01<sup>st</sup> July 2022 in association with NGO "Humanitarian". The expert for entrepreneurship and start- up training was Mr. Sachin Kanbhoje. He guided students about the start up challenges. The importance and process of platelet donation was explained by Mr. Vishwajeet, the expert for the SDP platelet donation camp.



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## Field Visits of Students

First year D. Pharm students from Columbia Institute of Pharmacy underwent field visits according to the PCI syllabus. The field visits help the students to understand the concepts learnt in the classroom and laboratory in a better way. It also, provide real-world experience to the students. Total number of students was 40. The faculty members guided them for the visit were Dr. Pushpa Prashad Gupta, Dr. Bibekananda Mehar, Mr. Sagar Sahu, Ms. Ruchi Bhattacharya, Ms. Renuka Verma, Mr. Rahul Kumar Goswami, Mr. Akhilesh Sahu & Mrs. Kamini Verma along with member of NSS and UBA. The details of the visits are as follows:

S. No	SUBJECT	PLACE VISITED	DATE VISITED	EXPERT
1.	Social Pharmacy	Primary health care centre, Mandhar, Raipur	4/07/22	Dr. Vijay Kumar Ekka M.B.B.S. In-charge Primary Health & Wellness Center Mandhar, Raipur
2.	Social Pharmacy	Nigam old-age home, mana camp, Raipur	6/07/22	Mrs. Parul Chakravarti In-charge Kuldeep Nigam Old Age Home
3.	Social Pharmacy	Water treatment plant, Bhatagaon, Raipur	27/07/22	Mrs. Monika Yadav Chemist & Treatment Plant Lab In-charge
4.	Pharmacognosy	Medicinal herbal garden at Indra Gandhi Agriculture University campus, Raipur	1/08/22	Dr. Surendra Singh Tuteja In-charge Herbal & Medicinal Garden IGKV Raipur



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## Mega Plantation

Columbia group of Institutions organized “Mega Plantation” was organized on 23 July 2022 in association with “Rotary Club”, Green Army, “Sikh Officer Welfare Association”, Raipur and NSS Club of CIP. An awareness regarding plantation is also given to the students. The members, Principals, faculties and students planted saplings, and fenced them and watered. The program created a great stir among the villagers too.



## Hareli Celebration

Hareli celebration was organized by Columbia Institute of Pharmacy, on 28/07/22. It is a very auspicious festival of Chhattisgarh. It is celebrated in the month of Savan and the festival basically belongs to farmers who worship cows and other equipments used for farming. The festival is celebrated in whole Chhattisgarh with full enthusiasm. On this occasion, gedi race and coconut throw competition were organized. All the faculties and students were actively participated in the program. The winners were encouraged by prize money of rupees 200.



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## Newly Joined Faculties



**Ms. Neha Dubey**  
M. Pharm (Pharmaceutics)



**Dr. Rajnikant Panik**  
M. Pharm (P'ceutics), PhD



**Mr. Manindra Mahapatra**  
M. Pharm (Pharmaceutics)



**Mr. Mahendra**  
M. Pharm (QA)



**Mr. Chhatrapal**  
M. Pharm (P'cology)



**Ms. Kamini Verma**  
B. Pharmacy



**Ms. Bhumika Verma**  
B. Pharmacy

## **Campus Interview**

Campus interviews by various Pharmaceutical Industries were organized by Mr. Atanu Bhattacharya, Placement Officer, Columbia Institute of Pharmacy for the students of B. Pharm final year. A record number of students being placed in reputed multinational Pharma companies. This speaks volumes about the calibre and competence of our students as well as the efforts taken by the Principal & faculties in our unwavering focus on quality education. The details are as follows:

S. No.	Company	Students Selected
1.	Akumentis Healthcare ltd.	Nitesh Tande
2.	Elen Pharma (India) Pvt.ltd	Pradeep Kumar Dewangan
3.	Zydus Cadila	Saroj Jangde
4.	Overseas Healthcare	Hemant Dewangan

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## SPIC MACAY

Columbia Group of Institutions, Raipur hosted an event at, in association with SPIC MACAY on 2<sup>nd</sup> August 2022. "Gotipua" The Folk Dance of Odisha was performed by Mr. Anant Behera and his team of 12 members. They performed Pallavi, Abhinaya and Bandhanritya as their dance styles. They also deliberated to the students about the Gotipua. They told that it is 300 years old and major dance form of Odisha. In this dance form boys dance like girls. It is a traditional dance form of Odissi folk dance performed in praise of Lord Jagannath. All the faculty members of Columbia group of Institutions were present along with the students.



## COVID Vaccination Drive

Columbia Group of Institutions, Raipur organized a vaccination drive camp for booster dose of COVID vaccine on 3<sup>rd</sup> August 2022 in association with NSS. All the students, faculty members and non teaching staff of Columbia, benefited by the camp.



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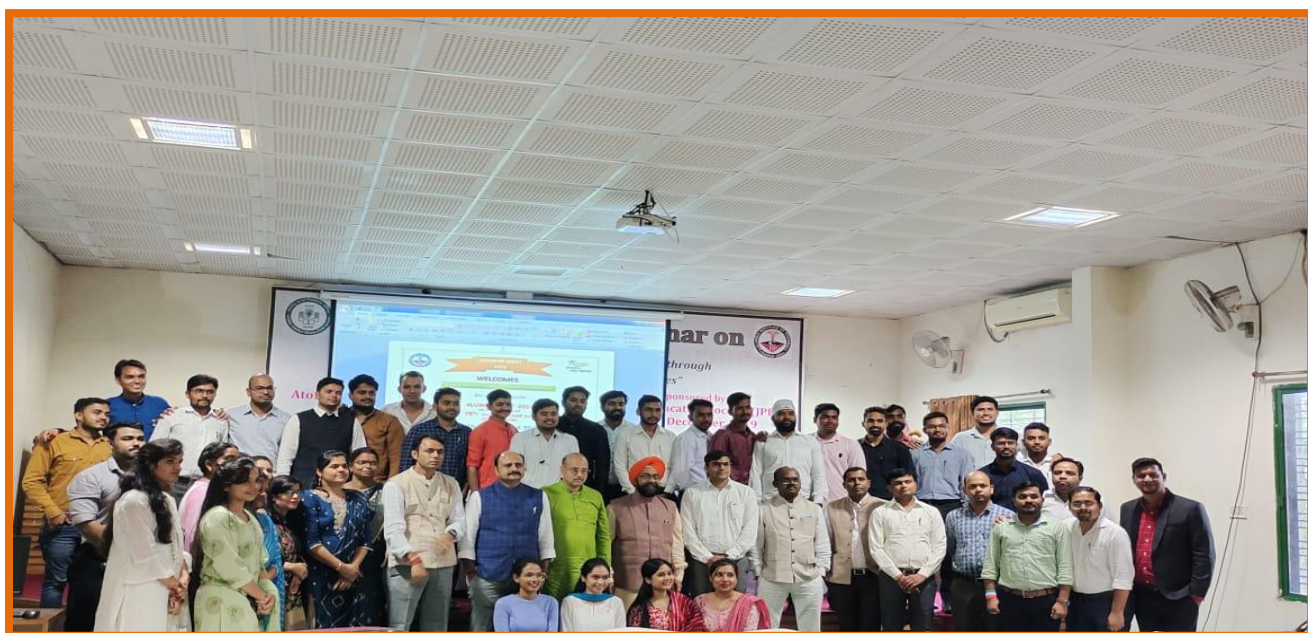
## Independence Day Celebration

Columbia Institute of Pharmacy celebrated 75th Independence day. According to the tradition of college the university toppers of the year Ms. Arushi Bhojwani, B. Pharm 5th sem, hoisted the national flag on the day. Shree Harjeet Singh Hura, Secretary, Janpragati Education Society, has delivered message on the occasion. The program was ended by sweet distribution.



## Alumni Meet 2022

Columbia Institute of Pharmacy organized Alumni Meet on 15<sup>th</sup> August 2022. Alumni are the passed out students of the institute. The students shared their experience and memories of their college time with the existing students. They also guided them for their future. After the program lunch was organized.



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## Janmashtami Celebration

Columbia Institute of Pharmacy celebrated the birthday of Lord Krishna with great devotion and enthusiasm on 22<sup>nd</sup> August 2022. Number of events was organized to celebrate the day. The students of all the classes actively participated in different events. The celebration ended with dahi handi competition.



## New Drug Approved in 2022

### Zoryve

**Company:** Arcutis Biotherapeutics, Inc.

**Approval Status:** Approved on 29/07/2022

**Specific Treatments:** Plaque psoriasis

Zoryve (Roflumilast) is a topical phosphodiesterase 4 (PDE4) inhibitor indicated for the treatment of plaque psoriasis.

### **Mechanism of Action**

Zoryve (Roflumilast) and its active metabolite (Roflumilast N-oxide) are inhibitors of Phosphodiesterases-4. This inhibition causes accumulation of intracellular cyclic AMP.

### **Side Effects**

Diarrhoea, headache, trouble sleeping, nausea, urinary tract infection, upper respiratory tract

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## Causerie Monkeypox Update

In recent weeks the monkeypox virus has continued to spread at a rate that has made it clear our current vaccine supply will not meet the current demand,” said FDA Commissioner Robert M. Califf, M.D. “The FDA quickly explored other scientifically appropriate options to facilitate access to the vaccine for all impacted individuals. By increasing the number of available doses, more individuals who want to be vaccinated against monkeypox will now have the opportunity to do so.” Jynneos, the Modified Vaccinia Ankara (MVA) vaccine, was approved in 2019 for prevention of smallpox and monkeypox disease in adults 18 years of age and older determined to be at high risk for smallpox or monkeypox infection. Jynneos is administered beneath the skin (subcutaneously) as two doses, four weeks (28 days) apart. For individuals 18 years of age and older determined to be at high risk of monkeypox infection, the EUA now allows for a fraction of the JYNNEOS dose to be administered between the layers of the skin (intradermally). Two doses of the vaccine given four weeks (28 days) apart will still be needed. There are no data available to indicate that one dose of Jynneos will provide long-lasting protection, which will be needed to control the current monkeypox outbreak.

Data from a 2015 clinical study of the MVA vaccine evaluated a two-dose series given intradermally compared to subcutaneously. Individuals who received the vaccine intradermally received a lower volume (one fifth) than individuals who received the vaccine subcutaneously. The results of this study demonstrated that intradermal administration produced a similar immune response to subcutaneous administration, meaning individuals in both groups responded to vaccination in a similar way. Administration by the intradermal route resulted in more redness, firmness, itchiness and swelling at the injection site, but less pain, and these side effects were manageable. The FDA has determined that the known and potential benefits of Jynneos outweigh the known and potential risks for the authorized uses

To support the FDA’s authorization of two doses of Jynneos administered by the subcutaneous route of administration in individuals younger than 18 years of age, the FDA considered the available Jynneos safety and immune response data in adults as well as the historical data with use of live vaccinia virus smallpox vaccine in pediatric populations.

**Mr. Manindra Mahapatra**  
**Assistant Professor, CIP, Raipur**



## Students' Thought

### *Beautiful Nature*

I love the sound of birds  
so early in the morn,  
I like the sound of puppies soon  
after they are born.  
I love the smell of flowers  
and the taste of honey from bees.  
I love the sound the wind makes  
when it's blowing through the  
trees.  
I love the way the sky looks on a  
bright and sunny day,  
and even when it's rainy, I love  
the shades of gray.  
I love the smell of the ocean, the  
sound of waves upon the sand,  
I love the feel of seashells and  
how they look in my hand.  
And when the sun is gone, I love  
the moon that shines so bright,  
I love the sounds of crickets and  
other creatures of the night.  
So when I lay me down to sleep, I  
thank the Lord above,  
For all the things of nature and  
more, all the things I love.

### *The Rainy Day*

The day is cold, and dark, and dreary;  
It rains, and the wind is never weary;  
The vine still clings to the moldering  
wall,  
But at every gust the dead leaves fall.  
And the day is dark and dreary.  
My life is cold, and dark, and dreary;  
It rains, and the wind is never weary;  
My thoughts still cling to the moldering  
Past,  
But the hopes of youth fall thick in the  
blast,  
And the days are dark and dreary.  
Be still, sad heart! and cease repining;  
Behind the clouds is the sun still shining;  
Thy fate is the common fate of all,  
Into each life some rain must fall,  
Some days must be dark and dreary.

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## GPAT Quiz- 16

1. Indian Rhubarb can be distinguished from Rhapontic Rhubarb by the fluorescence it emits under UV light. Indian Rhubarb gives
  - a) deep yellow
  - b) deep violet
  - c) orange
  - d) pale green
2. In IR spectrum, the functional group region is from
  - a)  $4000\text{ cm}^{-1}$  to  $900\text{ cm}^{-1}$
  - b)  $4000\text{ cm}^{-1}$  to  $1400\text{ cm}^{-1}$
  - c)  $1400\text{ cm}^{-1}$  to  $900\text{ cm}^{-1}$
  - d)  $40000\text{ cm}^{-1}$  to  $660\text{ cm}^{-1}$
3. For stable emulsion the value of  $\Delta G$  should be
  - a) Positive
  - b) Negative
  - c) Zero
  - d) All of the above
4. Which of the following is not a primary standard-
  - a) Benzoic acid
  - b) Pure zinc
  - c) Sodium oxalate
  - d) Sodium hydroxide
5. Diabetic coma is treated by the administration of:
  - a) Lente insulin
  - b) Glucose
  - c) Crystalline insulin
  - d) Oral anti-diabetic drugs
6. Which hormone acts through a cytoplasmic receptor:
  - a) Calcitriol
  - b) Prolactin
  - c) Vasopressin
  - d) None of the above
7. The following anticancer drug has high emetogenic potential:
  - a) Vincristine
  - b) Chlorambucil
  - c) 6-Mercaptopurine
  - d) Cisplatin
8. If 500 ml of 15% (v/v) solution of methyl salicylate in alcohol are diluted to 1500 ml. What will be the percentage strength?
  - a) 7.5 %
  - b) 5 %
  - c) 4 %
  - d) 10 %
9. How many milliliters of a 1:400 w/v stock solution should be used to make 4L of a 1:2000 w/v solution?
  - a) 600 ml
  - b) 500 ml
  - c) 800 ml
  - d) 400 ml
10. If 7.2% w/w active ingredient contained in crude plant & 21.6 % water, what is the percent of active ingredient after the drying?
  - a) 9.2%
  - b) 8.2%
  - c) 7.4 %
  - d) 8 %

Answer key Quiz 15: 1.(c) 2. (a) 3.(a) 4.(d) 5.(a) 6.(a) 7.(a) 8.(a) 9.(c) 10.(d)

## Less Known Facts About Traditional Food Mahua ki kheer

Mahua is found in central and western India such as Madhya Pradesh, Maharashtra, Andhra Pradesh, Orissa, Bihar and Gujarat. The flower is rich source of sugar, protein, vitamins and minerals. Flowers are used to make Jaggery; According to the book “indigenous drug of India” Mahua is highly therapeutic, due to its tannin content and coolant. Its is a much healthier option than the sugar based desert as it doesn't include any sugar or sweetener it. Mahuaa also known as butter fruit itself is the best natural sweetener. Used against heart disease, leucorrhoea, menorrhagia, bronchitis, tonsilitis, diabetes, inflammation, diarrhoea, fever, skin disease, intestinal worms etc.

Recipe: Boil the Mahua juice, Put clean and washed rice into the juice. Stir it. Continue to cook 25-35 minutes on low flame. Stir it every 5 minutes. When rice is done and become soft, add Jaggery, let it melt and boil, add prepared pitthi, and cook for another 8-10 minutes on low flame add hot milk slowly. Boil it for about 5 minutes add 1 teaspoon of ghee. Put off the flame. Add green cardamom powder, stir it and cover the lid. Mahupitthi (kheer in Mahua juice) is ready to serve. You may serve hot or cold as you wish. Decorate with dry fruits. Keep it into refrigerator for an hour or two. Now, cold Mahupitthi (kheer in Mahua juice) is ready to serve.

Nutritional value

Nutrient	QTY
Protein	4.4 g
Fat	0.6 g
Minerals	2.7 g
Fiber	1.7 g
Carbohydrate	72.0 g
Energy	311 Kcal
Calcium	140 mg
Phosphorus	140 mg
Iron	15.0 mg
: Carotene	23 ug.

### *Inspiring Quotes:-*

- *The art of teaching is the art of assisting discovery.*
- *Education is not preparation for life; education is life itself.*
- *There are no secrets to success. It is the result of preparation, hard work, and learning from failure.*

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## Plants with Health Benefits

### Terminalia chebula

**Synonym:** Myrobalan ,“Harad”, "Kadukkai", "Hirada", "Hilikha" and "Horitoky".



**Family:** Combretaceae

**Kingdom:** Plantae

**Order:** Myrtales

**Genus:** *Terminalia*

#### Nutritional value per 100 g (3.5 oz)

Total Calories	335
Total Fat	2.47
Cholestrol	Nil
Total Carbohydrate	Traces
Protein	12.22
Vitamin A	1.73
Vitamin c	45.5
Sodium	1070.34

#### **Morphology:**

*Terminalia chebula* is a medium to large deciduous tree growing to 30 m (98 ft) tall, with a trunk up to 1 m (3 ft 3 in) in diameter. The leaves are alternate to subopposite in arrangement, oval, 7–8 cm (2.8–3.1 in) long and 4.5–10 cm (1.8–3.9 in) broad with a 1–3 cm (0.39–1.18 in) petiole. The dull white to yellow flowers are monoecious, and have a strong, unpleasant odour. The fruits are smooth ellipsoid to ovoid drupes, yellow to orange-brown in colour, with a single angled stone.

#### **Chemical Composition :**

A number of glycosides have been isolated from haritaki, including the triterpenes arjunglucoside I, arjungenin, and the chebulosides I and II. Other constituents include a coumarin conjugated with gallic acids called chebulin, as well as other phenolic compounds including ellagic acid, 2,4-chebulyl- $\beta$ -D-glucopyranose, chebulinic acid, gallic acid, ethyl gallate, punicalagin, terflavin A, terchebin, luteolin, and tannic acid. Chebulic acid is a phenolic acid compound isolated from the ripe fruits. Luteic acid can be isolated from the bark. *Terminalia chebula* also contains terflavin B, a type of tannin, while chebulinic acid is found in the fruits.

**Uses:** *Terminalia chebula* is a main ingredient in the Ayurvedic formulation Triphala which is used for kidney and liver dysfunctions. The dried fruit is also used in Ayurveda as a purported antitussive, cardiotonic, homeostatic, diuretic, and laxative. It is also used as a soothing agent for dry cough

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## **Upcoming Events**

- DBT Sponsored Virtual Conference