

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 II of 11<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. Ms. Disha Kesharwani  
Assistant Professor, CIP
3. Mr. Gunjan Kalyani  
Assistant Professor, CIP
4. Ms. Suman Sen  
B. Pharm 4<sup>th</sup> Sem

## 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.



### **Columbia Institute of Pharmacy, Raipur**

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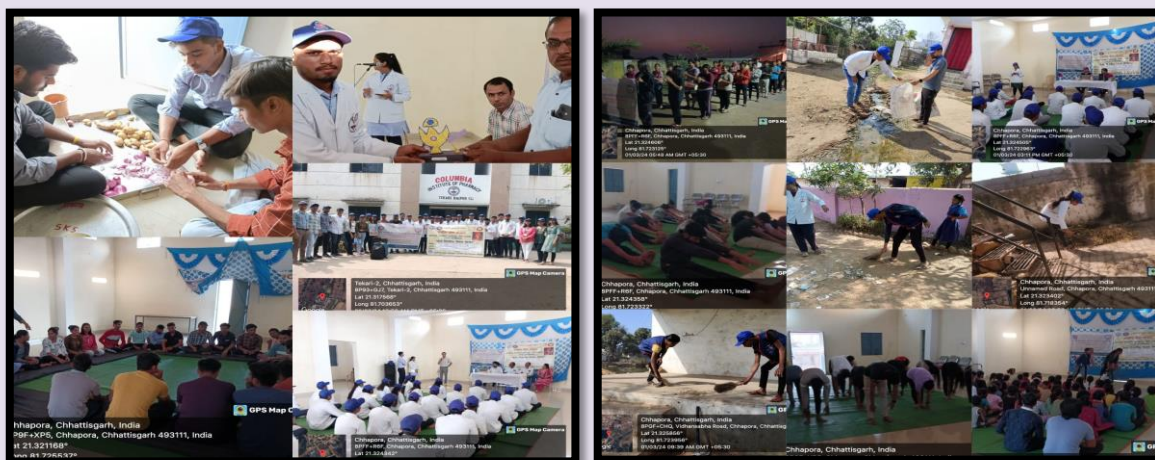
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## NSS Activities

### Seven Days Camp

The NSS Unit of Columbia Institute of Pharmacy, Raipur, organized a seven days special camp at Village Chhapora from Feb 28 to Mar 05, 2024 with theme **"Youth for Drug Free India"**. The inaugural Function was chaired by guests Shri Harjeet Singh Hura, Secretary, JPES, Prof. Shiv Shankar Shukla, Prof. Trilochan Sathpathy, Dr. Bina Gidwani and Mr. Arun Shukla (Sarpanch, Chhapora). The dignitaries encouraged the NSS unit for completing their tasks enthusiastically. 26 NSS volunteers (students) participated in this camp. Prabhat Rally, Yoga, Meditation, Shramdan and Baudhik Satra were the daily routine of the NSS volunteers. Health camp, cleanliness programme at school, health centre, and Mandir, shikshadan on topic "Reuse of Single used Plastics", were carried out. Awareness rally on various current issues like voting, dowry, road safety and nukkad natak on TB, etc. were performed under Shramdan. For "Baudhik Satra" some respectable guests were invited for talk on various social topics on different dates. The guests were, Ms. Anjali Bandhe (CHO, Chhapora), Mr. Gunjan Kalyani (Assistant Prof, CIP), Ms. Monika Bagrecha (Vice President, Sahyog-Ek Koshish), Mr Mrityunjay Sahu (RD Parade Participant, SSGI Bhilai), and Mr. Anurag Tiwari (Psychologist Raipur). The closing ceremony of the camp was ornamented with the special presence of Prof. Ravindra Pandey, Principal, Columbia Institute of Pharmacy, Prof. Shiv Shankar Shukla, Dr. S Prakash Rao, and Mr. Arun Shukla(Sarpanch). The guests appreciated the team for their dedication and hard work.



### Fruit Distribution

On the occasion of Mahashivratri, NSS volunteers of Columbia Institute of Pharmacy participated in cleanliness activities in areas nearby Shiv mandir and distributed fruits and Prasad on 08/03/2024.

### No Smoking Day

"No Smoking Day" was observed by NSS volunteers of Columbia Institute of Pharmacy, Raipur on 13/03/24, where they awarded the common people about ill effects of Smoking by organizing rally and performing nukkad natak.

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## Visit at Divyang School

NSS volunteers of Columbia Institute of Pharmacy Raipur visited Arpan Divyang Public School, Raipur on 21/03/24 and spent some happy time with the children. In Indian School System, these children are often referred as Children with special needs i.e. CWSN. They interacted with them, in sign language, conveyed best wishes for Holi festival and distributed Chocolates, Biscuits, and study kit to them with included copy, pencil, eraser. Children also interacted with NSS volunteers in happy environment.



## Cancer awareness walkathon

24 NSS Volunteers of CIP participated in BMC Walkathon organized by Balco Medical Center at Raipur on 31/03/24. The walkathon started from marine drive and ended after 4 km at Ghadi chowk. The motto of BMC Walkathon was **"Walk for a life"**. It is a community driven event focused on raising awareness about cancer and its care, its prevention and importance of healthy life style.



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## Women's Day Celebration

Students of Columbia Institute of Pharmacy, Raipur celebrated International Women's Day to acknowledge the efforts of Women Staff of CIP on 09/03/24. The students along with NSS volunteers prepared various bequest items for the teachers and guest by using "Desecrate Materials". Their efforts were highly appreciated. The program was followed by various cultural events prepared by students and ended with a short video on teacher's activities and a group photo.



## Entrepreneurship Cell Workshop

The Entrepreneurship cell of CIP recently hosted a one-day workshop at 13 March 2024, focusing on business opportunities in the fragrance industry. Experts were invited from Vanesa Cosmetics Pvt. Ltd.'s HR department in Delhi to share their insights. Multiple experts delivered their views on this topic, resulting in the successful completion of the event. Programme provided the students valuable opportunities to pursue entrepreneurship.



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## In- House Workshop

Columbia Institute of Pharmacy, Raipur has initiated a novel concept of training to the faculties so that they may gain knowledge about various instruments and techniques to remain updated with the current scenario. Every Saturday, an “In- House Workshop” is conducted by a department to impart training.

On April 06, 2024 Mr. Sagar Sahu, Assistant Professor demonstrated the working of melting point apparatus and Mr. Rahul Goswami, Assistant Professor demonstrated the working of Colorimeter. On April 13, 2024 Dr. Shashikant Chandrakar, Associate Professor demonstrated the working of Brookfield Viscometer and Automated Tablet Punching Machine on April 20, 2024. On April 27, 2024, Dr. Rajnikant Panik, Associate Professor demonstrated the working of Dissolution Apparatus where all the faculty members were present.



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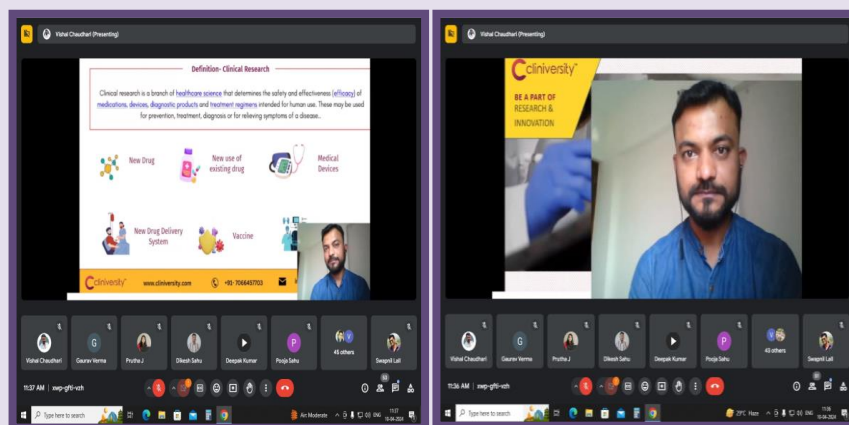
## Webinar

We're excited to reflect on the recent webinar titled "**Exploring New Career Paths after Graduation and Post-Graduation**" which took place on April 10, 2024. This insightful seminar, was hosted by the Columbia Institute of Pharmacy, focused on the expanding prospects in the healthcare industry and provided students starting their careers with priceless advice. Throughout the webinar, participants engaged in discussions covering a spectrum of key topics including, innovation and research development, clinical research methodologies effective clinical trial management, ensuring Precision in Clinical Data management vigilance in Pharmacovigilance precision in Medical Writing Understanding the essentials of medical coding, navigating regulatory affairs in healthcare additionally, emphasis was placed on essential skills essential for fresh graduates, such as adept communication, technical acumen, proficiency in computer applications, and polished presentation skills.

The success of the event was made possible by the diligent efforts of individuals like Ms. Prutha Joshi, who flawlessly organized the webinar, and the significant contributions of Mr. Vishal Choudhary, who, as the speaker, greatly enhanced the discussions with his expertise.

Extension of appreciation to Prof. Ravindra Kumar Pandey, the Principal of the Columbia Institute of Pharmacy, whose leadership and guidance were pivotal in orchestrating this insightful webinar. Special acknowledgment to Mr. Swapnil Lall, Mr. Rahul Kumar Goswami, and Ms. Shilpa Sahu for their invaluable contributions to the seamless conduct of the webinar. Their dedication and expertise played a crucial role in ensuring the event's success.

Attendees were also introduced to the comprehensive programs offered by Cliniversity, covering a wide array of disciplines including clinical research, pharmacovigilance, and regulatory affairs. These programs provide interactive modules, practical training sessions, and internship opportunities, aligning with Cliniversity's commitment to nurturing aspiring healthcare professionals. In essence, the webinar served as a beacon for exploring the multifaceted career prospects within the healthcare realm, underscoring Cliniversity's dedication to empowering individuals with the requisite skills for success.



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## Saturday Activities

### 1. Guest lecture

Columbia Institute of Pharmacy organized guest lecture by Prof. Anamika Singh on 02 March 2024. The topic of her lecture was self injury awareness and she also motivated the students to face their problems of life. Program was organized under the supervision of Prof. Ravindra Kumar Pandey, Principal, Columbia Institute of Pharmacy and General Secretary of Indian Pharmacy Graduates' Association & Professor, CIP. All the IPGA members and other faculty members were present in the event.

### 2. Guest lecture

Another guest lecture was organized on "Vaccine day", 16 March 2024 by Prof. Anamika Singh. She explained about vaccines. In oral presentation competition, students give oral presentation of vaccines. All the students participated in the program and cleared their doubts.



### 3. Holi Celebration

Columbia Institute of Pharmacy (CIP) in association with Indian Pharmaceutical Graduate Association (IPGA), Raipur celebrated Holi in campus where all the faculty members and students of CIP actively involved themselves. During the event Shri Kishore Jadwani, Chairman, Janpragati Education Society, Shri Harjeet Singh Hura, Secretary Janpragati Education Society and Prof. Ravindra Kumar Pandey, Principal, Columbia Institute of Pharmacy along with other faculty members were present. The programme was organized by Prof. Ravindra Kumar Pandey, General Secretary of Indian Pharmacy Graduate Association & Professor, CIP. Dr. Neha Dubey and Ms. Shilpa Sahu were the programme coordinators.



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#### 4. Power Point Presentation Competition

Power point presentation competition was organized on the occasion of Tuberculosis day on 30 March 2024. The Topic for PPT presentation was Awareness on tuberculosis. All the students of CIP took part enthusiastically in this competition. The students made PPT in a very creative way to aware people regarding tuberculosis.



#### 5. Poster making competition, Nukkad natak

Two events were organized in first week of April on 06 April 2024. The poster making competition which was judged by Mr. Gunjan Kalyani. Kajal Dewangan from B. Pharm. 3<sup>rd</sup> sem secured first position in Poster making competition on the theme diabetes. The other event was nukkad natak performed by NSS volunteers.



#### 6. Indoor games

Columbia Institute of Pharmacy organized Table tennis, Chess and carom competition on 20 April 2024. In which all the students of our institute took part enthusiastically. The games were conducted by Mr. Mahendra Sahu and Mr. Dhananjay Sahu. The other event was workshop on tablet punching machine for faculty members of CIP. Tablet punching machine was demonstrated by Dr. Shashikant Chandrakar. Programme was organized by Prof. Ravindra Kumar Pandey, Principal, Columbia Institute of Pharmacy and General Secretary of Indian Pharmacy Graduates' Association. Dr. Bina Gidwani, Dr. Neha Dubey, Mr. Rahul Goswami and other faculty members were present in the event.



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## ACHIEVEMENTS

### Paper Publication

1. **Dr. Ravindra Kumar Pandey** published a paper titled “Investigation of antidiabetic of antidiabetic activity and pharmacokinetics in herbomineral ayurvedic formulation Arogyavardhini Gutika in streptozotocin induced wistar rats” in Palestinian Medical and Pharmaceutical Journal, 9 (1) 2024; along with, Dr. Bina Gidwani, Dr. Shiv Shankar Shukla, and Ms. Ruchi Bhattacharya.
2. **Dr. Ravindra Pandey** published a paper titled “Ethnomedicinal Value of Medicinal Plants found in Chhattisgarh: Recent Scenario and Advancement” in **Current Traditional Medicine**, 25 (11) Nov 2023; along with, Dr. Shiv Shankar Shukla, Dr. Beena Gidwani, Dr. Neha Dubey, Dr. Parag Jain, Akanksha Jain and Dr. Ajazuddin.
3. **Dr. Trilochan Satapathy** published a paper titled “Recent Advancement in Novel Wound Healing Therapies by Using Antimicrobial Peptides Derived from Humans and Amphibians” in **Journal of Current Protein & Peptide Science**” 05 April, 2024, along with, Yugal Kishore, Ravindra Kumar Pandey, Shiv Shankar Shukla, Shiv Kumar Bhardwaj and Beena Gidwani.
4. **Dr. Trilochan Satapathy** published a paper titled “Indian herbs in the treatment of Liver injury: A Mechanism based review” in “World Journal of Pharmaceutical Research”, 13(6), along with, Shashikala Sonwani.
5. **Dr. Trilochan Satapathy** published a paper titled “Carica Papaya: A plant with multiple benefits for human health” in “International Journal of Research Publications and Reviews” 5(3), along with, Duleshwar Prasad Sahu and Himanshu Sahu.
6. **Dr. Trilochan Satapathy** published a paper titled “An overview of Inflammatory Mediators and treatment approaches for Rheumatoid Arthritis”, **International Journal of Research and Analytical Reviews**, 11(2) along with Ashu Vishwakarma.
7. **Dr. S. Prakash Rao** published a paper titled "Exploration of antimelanoma potential of Phytochemicals from *Nyctanthes Arbortristis* through computational studies" in **International Journal of Applied Pharmaceutics**, 2024, 16(12) along with Dr. Sharmishtha Banerjee, Dr. Madhuri Baghel, Ishita Baghel and Dr. Meenakshi Bharkatiya.
8. **Dr. S. Prakash Rao** published a paper titled "In Preclinical Models, B K Channel Subunits Influence Responses to Endocrine Therapy and Encourage the Development of Breast Cancer" in **Journal of Chemical Health Risks**, 2024, 14(1) along with Dr. Ashish Majumdar, Dr. Madhuri Baghel, Ms. Meenakshi Bharkatia and Mr. Hari Prasad Sonwani.
9. **Dr. Bina Gidwani** published a paper titled “Spectrophotometric method development and Validation of Empagliflozin in active pharmaceutical ingredient and tablet dosage form”, **Journal of Applied Spectroscopy**, 91 (2) March- April 2024; along with Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla, and Mr. Sagar Sahu.

### Book Publication

1. **Mr. Shiv Kumar Bharadwaj** published a entitled “Human Anatomy and Physiology-II, under JEC publications along with Mr. Arvind Kumar, Ms. Princy Kashyap, and Mr. Roshan Sonwani.

### Book Chapters

1. **Dr. Shiv Shankar Shukla** published a book chapter entitled “Therapeutic Applications of Herbal Medicines for the Prevention and Management of Cancer, under Springer Nature, along with Ravindra Kumar Pandey, Manish Pathak, Rupesh Kumar Pandey, Lubhan Singh, Amit Kumar, Ganesh Prasad Mishra, and Bina Gidwani,
2. **Dr. Bina Gidwani** published a book chapter entitled “Recent strategies inhibiting quorum sensing and biofilm formation in bacteria to combat antibacterial drug resistance, in an international book under IGI Global Science along with Sakshi Tiwari, Swagta Deshpandey, Reena Gupta, Kapil Agrawal, Veenu Joshi, Vishal Jain, Preeti K. Suresh and Amber Vyas.

### Patents

1. **Dr. Monika Bhairam, Ms. Disha Kesharwani, Mr. Gunjan Kalyani and Ms. Sandhya Mishra** have received, **Indian Design Patent**, entitled “Disintegration Test Apparatus” with Design number: 407948-001 on 05/04/2024.

### Poster Presentation

1. **Dr. Monika Bhairam** presented poster entitled “Nano-enhanced herbal remedies: A new frontier in bioactive delivery” in DST SERB Sponsored International Conference on natural products and human ailments-2024. The conference was organized by Himalayan Pharmacy Institute, Majhitar, Sikkim, on the 14-17th of March 2024.

### Training Program

1. **Dr. Shiv Shankar Shukla and Dr. Bina Gidwani** attended **Faculty Development Program** on theme “Transformative Approaches in Pharmacy harnessing QbD AI ML Software Tools for Drug Development” organized by Krupanidhi College of Pharmacy, Bangalore from 12- 16 March 2024.

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## ACHIEVEMENTS

### Conferences Attended

1. **Dr. Monika Bhairam** attended Webinar on “**PHARMA anveshan 2024**” organized by Assam down town University, Guwahati, Assam on the occasion of National Pharmacy Education Day, 6th March, 2024.
2. **Dr. Monika Bhairam, Ms. Disha Kesharwani and Ms. Sandhya Mishra** participated in Women and Girls in Science Leadership: A New Era for Sustainability, organized by IPGA Women Forum on 8<sup>th</sup> March 2024
3. **Dr. Neha Dubey** attended Webinar on “**PHARMA Anveshan 2024**” organized by ISBM University, Gariyabandh Chhattisgarh on 6th March, 2024.
4. **Dr. Neha Dubey** participated in 45th SPSR International Webinar on 'Preclinical Animal Model Studying Neurological Diseases' organized by the Society of Pharmaceutical Sciences and Research (SPSR), 21st April 2024.
5. **Dr. Monika Bhairam and Ms. Sandhya Mishra** participated in 47th SPSR International Webinar on 'Targeting immune evasion in Pancreatic Cancer 'organized by the Society of Pharmaceutical Sciences and Research (SPSR) on 24<sup>th</sup> March 2024.
6. All the faculty members of Columbia Institute of Pharmacy attended a seminar on “**Taxation and Mutual Funds**” organized by CIET on 13<sup>th</sup> March 2024.

### Campus News

The Career Guidance, Training, and Placement Cell of Columbia Institute of Pharmacy organized a campus interview for B. Pharm and D. Pharm final year students on 15 & 16 April 2024 for various position in Pharma Marketing at T N Sys Meryl Pharma Pvt. Ltd. We are proud to announce that ten of our outstanding students have been selected to join their respective headquarters starting June 1st, 2024. These remarkable individuals have demonstrated exceptional potential and qualifications, aligning closely with the requirements and expectations of their new positions. We extend our warmest wishes to Rohit Barai, Suhani Markam, Himanshu Jangde, Anamika Dutta, Chandrashekhar Banjare, Pankaj Sahu, Parth Deshmukh, Roshan Kumar Singh, Devansh Amol Lagoo, and Dhaneshwar Kumar on reaching this significant milestone in their careers. Our students were also participated in campus drive for Macleods, held in RITEE, Raipur on 14<sup>th</sup> March 2024. In this campus drive our two students, Venkatesh Sahu and Khumesh Verma were selected for the production department and Ms. Jyoti Dewangan was selected for quality control department. These students showcased their exceptional skills and qualifications during interviews conducted on April 15th and 16th, 2024, demonstrating their readiness to contribute effectively in their new roles. We commend their accomplishments and wish them the very best in their future endeavors at T N Sys Meryl Pharma Pvt. Ltd. We are confident that they will excel in their roles and bring pride to both our institute and the esteemed organization they are joining. We also extend our gratitude to all applicants for their interest in joining T N Sys Meryl Pharma Pvt. Ltd., and we appreciate the time and efforts invested by our faculty in arranging the campus selection process.



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## Details of Funding agencies

S.No	Funded by	Scheme	Amount	Deadline	Source of information
1	BIRAC, New Delhi	Industry-Academia project under BARC-SBIRI	Maximum 3 Crore (As per duration of project)	15th May 2024	<a href="http://www.birac.nic.in">www.birac.nic.in</a>
2	ICSSR, New Delhi	ICSSR-NSTC Joint Call for Research Proposals	Maximum 12 Lacs for three executive year	30/05/2024	<a href="http://www.icssr.org">www.icssr.org</a>
3	ICSSR, New Delhi	Short term empirical research	40,000 Rs. for 3 three year	Round the year	<a href="http://www.icssr.org">www.icssr.org</a>
4	DST, New Delhi	<u>WISE-SCOPE Fellowship</u>	55000 per month Rs	31/08/2024	<a href="https://onlinedst.gov.in/">https://onlinedst.gov.in/</a>
5	Chhattisgarh council of science & technology, Raipur (C.G.)	National Seminar/International Seminar	50000 Rs. /100000 Rs	Round the year	<a href="http://cgcost.nic.in">cgcost.nic.in</a>

## Causerie

### **Implication of Artificial Intelligence (AI) in Plant Conservation**

Artificial intelligence (AI) has instigated a plethora of changes and innovations in many industries worldwide in recent years. Organizations across sectors like healthcare, finance, tech, and many others are constantly seeking ways in which they can leverage the power of AI to help boost employee productivity, operational efficiency and accuracy, and reap numerous other benefits. Another field that has seen demonstrable advantages as a result of integrating AI into its fabric is Plant conservation. AI has significant potential to advance conservation efforts and solve some of the sector's most prominent and pervasive challenges. With AI applications in conservation on the rise, organizations can expect to gain more accurate and valuable insights, improve the effectiveness and speed of actions that combat environmental destruction, and ultimately, ensure that animals, humans and their habitats are able to coexist harmoniously. Much like how businesses are pivotal in helping the fight against climate change, their utilization of AI can also prove similarly effective if they are actively involved in conservation.

**Mr. Gunjan Kalyani**

Assistant Professor

Columbia Institute of Pharmacy, Raipur, Chhattisgarh, India

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## GPAT Quiz- 19

1. For the measurement of hypoglycemic activity, the following herbal extract is used.....
  - a. Karela
  - b. Jambul
  - c. Fenugreek
  - d. All of the above
2. Outgrowth arista( awn) is found in following drug.....
  - a. Cardamom
  - b. Castor
  - c. Nutmeg
  - d. Stropanthus
3. Cam tracks are used in tablet formulation for
  - a. Feeding the granules
  - b. Fixing the shape
  - c. Compressing the granules
  - d. Guiding the movement of punches
4. Estimate the plasma concentration of drug when 100mg is given by IV bolus to a 70kg patient having volume of distribution  $V_d$  of 42 liters
  - a. 2.4 mg/l
  - b. 240 mg/l
  - c. 75 mg/l
  - d. 0.75 mg/l
5. Direct effects on the heart are determined largely by:
  - a. Alfa1 receptor
  - b. Alfa2 receptor
  - b. Beta1 receptor
  - d. Beta2 receptor
6. Indicate the side effect of Theophylline:
  - a. Bradycardia
  - b. Increased myocardial demands for oxygen
  - c. Depression of respiratory centre
  - d. Elevation of the arterial blood pressure
7. In pharmaceutical system stokes equation is followed by
  - a. System containing less than 2 g solid
  - b. System containing less than 5 g solid
  - c. System containing less that 10 g solid
  - d. System containing less than 15 g solid
8. A completely hydrophilic molecules has an HLB value of
  - a. 5
  - b. 10
  - c. 16
  - d. 20
9. What is the minimum size of ophthalmic suspension paricle size to minimize irritation to the eye
  - a. Less than 10  $\mu\text{m}$
  - b. Less than 100  $\mu\text{m}$
  - b. Less than 1000  $\mu\text{m}$
  - d. less than 10000  $\mu\text{m}$
10. Which combination is potassium sparing diuretics –
  - a. Spironolactone, amiloride and triamterene
  - b. Spironolactone, bumetanide and triamterene
  - c. Urea, Spironolactone and triamterene
  - d. Polythiazide, bumetanide and triamterene

Answer key Quiz 18: 1.(a) 2. (b) 3.(c) 4.(d) 5.(a) 6.(b) 7.(b) 8.(a) 9.(d) 10.(c)

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## Students' Thought

### Influence

Drop a pebble in the water,  
And its ripples reach out far;  
And the sunbeams dancing on them  
May reflect them to a star.

Give a smile to someone passing,  
Thereby making his morning glad;  
It may greet you in the evening  
When your own heart may be sad.

Do a deed of simple kindness;  
Though its end you may not see,  
It may reach, like widening ripples,  
Down a long eternity.

Himanshu Verma  
B. Pharm. VI Sem.

### The Victor

If you think you are beaten, you are.  
If you think you dare not, you don't.  
If you like to win but think you can't,  
It's almost a cinch you won't.  
If you think you'll lose, you're lost.  
For out in the world we find  
Success begins with a fellow's will.  
It's all in the state of mind.  
If you think you are out classed, you are.  
You've got to think high to rise.  
You've got to be sure of your-self before  
You can ever win the prize.  
Life's battles don't always go  
To the stronger or faster man.  
But sooner or later, the man who wins  
Is the man who thinks he can.

Dhanraj Verma  
B. Pharm. IV Sem.

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## New Drug Approved in 2024

### Pivya

**Company:** Utility Therapeutics Ltd.

**Approval Status:** Approved 24/04/2024

**Specific Treatments:** Urinary Tract Infection .

Pivya (pivmecillinam) is a penicillin class antibacterial for use in the treatment of uncomplicated urinary tract infections.

#### **Mechanism of Action**

It is a beta lactam antibiotic that works by interfering with the biosynthesis of the bacterial cell wall. It is basically a prodrug that is hydrolyzed in the body to its active antibacterial agent, mecillinam, by enzymes in the blood, GIT and other tissues. It is mainly active against gram negative bacteria.

#### **Side Effects**

Nausea. diarrhoea.

#### **Inspiring Quotes:-**

- There are no shortcuts to any place worth going.
- Failure is the opportunity to begin again more intelligently.
- Push yourself, because no one else is going to do it for you.
- The secret of success is to do the common things uncommonly well.
- The way to get started is to quit talking and begin doing.

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## Less Known Facts About Traditional Food

### Lauki raita

Bottle gourd is known as Lauki or Doodhi in India and is used in a variety of north and south Indian dishes. Lauki has many health benefits and has nutritional properties that are good for the body's immune system. Lauki has a high water content, it is a rich source of many minerals and vitamins, it is easily digestible and it is perfect for keeping your body cool during summers. Lauki and yogurt make a healthy combination and help you curb those cravings while on a diet plan. Yogurt has a good amount of protein and calcium and lauki is high in fiber content. Together, they are a good combination for weight loss.

**Recipe:** Wash, peel and grate the lauki. If there are big seeds in the middle, remove them and then grate the lauki. Add the grated lauki to the Instant pot along with salt and water and pressure cook. If you are using stovetop pressure cooker, cook the lauki for 1 whistle. If you are using a saucepan, boil the lauki till it becomes soft and tender. Cover the lid for faster cooking. grated lauki in instant pot pressure cooker. When cooking in Instant pot or stovetop pressure, be sure to release the pressure quickly. Strain the lauki immediately using a strainer and keep it under running cold water for a few seconds. This helps to avoid overcooking the lauki. Press the lauki between your palms to strain the excess water and keep it aside. Whisk the yogurt till it is smooth and creamy. Add the grated lauki, green chili and seasoning into the yogurt. Stir well. Serve chilled and garnish with cilantro before serving.

### **Nutritional value:**

Nutrients	Per Serving 100g
Carbohydrate	12 g
Protein	7 g
Fat	6 g
Energy	131 Cal
Fiber	1g
Iron	1 mg
Calcium	250 mg
Sugar	9 g
Potassium	388 mg

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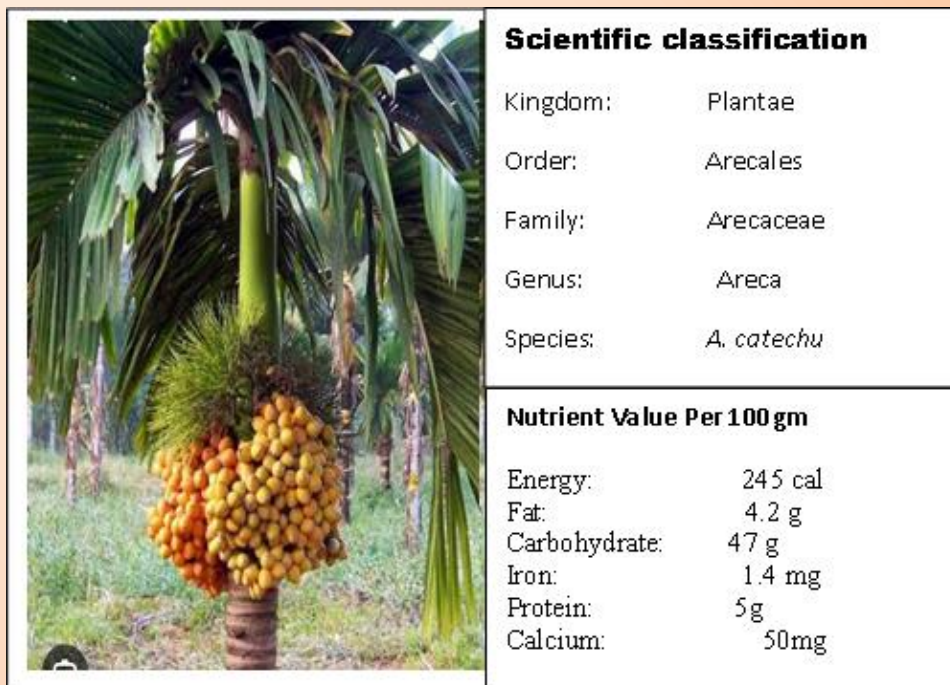
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## Plants with Health Benefits

### *Areca Catechu*

**Synonyms:** Areca palm, areca nut palm, betel palm, betel nut palm, Indian nut, pinang palm and catechu.

Areca catechu is a species of palm which grows in much of the tropical Pacific, Asia, and parts of east Africa. The palm is native to the Philippines.



**Morphology:** Areca catechu is a medium-sized palm tree, growing straight to 20 m (66 ft) tall, with a trunk 10–15 cm (4–6 in) in diameter. The leaves are 1.5–2 m (4.9–6.6 ft) long, pinnate, with numerous, crowded leaflets. The areca nut is not a true nut, but rather the seed of a fruit categorized as a berry. It is commercially available in dried, cured, and fresh forms. When the husk of the fresh fruit is green, the nut inside is soft enough to be cut with a typical knife. In the ripe fruit, the husk becomes yellow or orange, and as it dries, the fruit inside hardens to a wood-like consistency.

**Chemical composition:** The major alkaloid in betel nut is arecoline. There are other compounds, such as arecaine, guvacine, isoguvacine, and guvacoline. Tannins present in betel nut are mainly proanthocyanidins along with catechins and arecatannin. Two new alkaloids were recently discovered and named acatechu A and acatechu B. Several non-alkaloid compounds including benzenoids, terpenes, carboxylic acids, aldehydes, alcohols, and esters were also identified.

**Uses:** Powdered areca nut is used as a constituent in some dentifrices. Other traditional uses include the removal of tapeworms and other intestinal parasites by swallowing a few teaspoons of powdered areca nut, drunk as a decoction, or by taking tablets containing the extracted alkaloids. According to traditional Ayurvedic medicine, chewing areca nut and betel leaf is a good remedy against bad breath.

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# Upcoming EVENTS

## Saturday Activities

- i. Fetch the journal competition
- ii. Technology day
- iii. PPT presentation on New drug approval in 2024
- iv. Poster competition
- v. Sports

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