



## NEWS LETTER MARCH- APRIL 2019

### Editorial Board

1. Dr. Trilochan Satapathy  
Professor, CIP, Raipur
2. Disha Kesharwani  
Assistant Professor, CIP, Raipur
3. Charul Lautre  
B. pharm 8<sup>th</sup> Sem

### Message from Editor's Desk

Welcome to all the reader.....

We are very happy to introduce volume II of 6<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 and academic progress and achievements. 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.Trilochan Satapathy**

### **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 ton add value in Pharma, Engineering and Management education.



**Columbia Institute of Pharmacy, Raipur**

Shining Stars of Columbia



Vinod Dewangan 3<sup>rd</sup> Sem 85.83%



Kajal Dewangan 1<sup>st</sup> Sem 90.20%

## Achievements

### PhD award

It is a matter of immense pleasure for the institute that one of the research scholar, Mr. Shashikant Chandrakar has been awarded with his PhD under CSVTU. He has completed his PhD under Prof. Amit Roy, Principal Columbia Institute of Pharmacy. The title of his thesis is “Development and study of Microemulsion and Gel based Ocular Formulation of Fluoroquinolone Derivatives.



**Aseem Setia** student of B. Pharm 8<sup>th</sup> semester participated and awarded with Best student award for **Oral Presentation** in the *5th International Conference on Pharmaceuticals API & Manufacturing* with the theme “*Enabling Technologies for API Formulation and Manufacturing*” organized by *Bioleagues worldwide* held at, **Jakarta, Indonesia** on **March 15<sup>th</sup> & 16<sup>th</sup>, 2019.**

### **NIRF Ranking**

It is a matter of immense pleasure that our institute, Columbia Institute of Pharmacy is ranked between 76- 100 in NIRF declared by MHRD, Government of India. Management members congratulated all the staff members and motivated them to continue their efforts.

### **National Service Scheme (NSS) Cell Formation**

An NSS cell was formed in Columbia Institute of Pharmacy, developing students's personality through community service. NSS is a voluntary association of younge people in colleges. The constitution of NSS Cell in Columbia Institute of Pharmacy is:

- Mr. Sagar Sahu- In- Charge of the NSS cell
- Mr. Mithilesh Chandrakar- Member NSS cell

### **Student Representatives**

- Yash Govindani, B. Pharm II Sem
- Shafiq Khan, B. Pharm II Sem
- Nitesh, B. Pharm II Sem
- Bharati Adhikari, B. Pharm IV Sem
- Ayushi Sharma, B. Pharm IV Sem

### **NSS Cell Activity -“Right to Vote” Awareness Campaign**

Columbia Institute of Pharmacy's NSS Unit participated in an awareness programme regarding “Right to Vote” under the supervision of NSS head Mr. Sagar Sahu and Mr. Mithlesh Kumar Chandrakar in nearby village Tekari on 20 April 2019. It was followed by a rally. Through this awareness rally, NSS member shared information regarding importance of voting for growth of nation with the villegers. The awareness campaign commenced around 9:30 am. About 38 students actively participated in awareness campaign and rally.



### Health Camp by NSS Cell

A health camp was organised by NSS cell of CIP with sponsorship of Sikh Officer Association, in nearby villages on 28/04/19. Various reputed specialists like eye specialist, orthopedician, paediatrician, gynaecologist, dentist were invited. The camp provided villagers free health check ups along with the required medicines.



### New Course Affiliation

We are happy to share to all the readers that Columbia Institute of Pharmacy got affiliation for Diploma in Pharmacy Course for the year 2019- 2020 from both the PCI and AICTE. 60 seats are available under the course.

*Don't study to earn. Study to learn. What you learn today is what you will become tomorrow.....*

**Causerie**

**Hydrotrophy : An Exalted Tool for Solubility Enhancement**

Many studies revealed that absorption of drug efficiently is the major requirement for reaching its therapeutically effective levels. Hence for desirable therapeutic action, the drug should dissolve in the biological fluid. There have been constant efforts to improve drug solubility by various techniques such as micronization, nanotization, supercritical fluid extraction, lyophilisation, crystallization etc. Since the last two decades, hydrotrophy has been gaining popularity because of its ease of availability, reproducibility, simplicity, solubility enhancement potential and environmental friendly nature. Hydrotrophy is defined as a solubilisation process whereby addition of a large amount of second solute results in an increase in the aqueous solubility of another solute and the chemicals which are used in hydrotrophy are called hydrotropes. For example sodium benzoate, urea, sodium salicylate and ibuprofen sodium etc. Hydrotrophy has certain advantages like superior miscibility, micellar solubilization, co solvency and salting and is also independent of pH. It only requires mixing the drug with the hydrotrope in water. It does not require chemical modification of hydrophobic drugs, use of organic solvents, or preparation of emulsion system.

**Sandhya Mishra**

Assistant Professor

Columbia Institute of Pharmacy

**Quiz**

1. Standard unit of volume in metric system is  
(a) Microliter (b) Milliliter (c) Centiliter (d) Liter
2. Phentolamine is competitive antagonist of ...  
(a) Acetylcholine (b) Isoprenaline (c) Noradrenaline (d) atropine
3. Tailing of peak in GLC is reduced by using...  
(a) Dimethyl silane (b) Etramethyl silane (c) Hexamethyl disilazane (d) Trimethyl silane
4. Infliximab is used as ...  
(a) Anticytokine agent (b) Crohn's disease (c) Psoriatic arthropathy (d) All of the above
5. Glucose absorption is promoted by...  
(a) Vitamin A (b) Vitamin E (c) Ascorbic acid (d) Thiamine
6. Which of the alkaloids are liquid and volatile in nature?  
(a) Nicotine & coniine (b) Morphine & papvarine (c) Atropine & quinine (d) None of these
7. Space required for manufacturing parenterals ..  
(a) 50 m<sup>2</sup> (b) 60 m<sup>2</sup> (c) 80 m<sup>2</sup> (d) 100 m<sup>2</sup>
8. Filter integrity testing can be carried out using:  
(a) Bubble point test (b) Water intrusion test (c) Diffusion flow test (d) All
9. Indian kino tree is ..  
(a) Ashoka (b) Pterocarpous (c) Aloe (d) Lobelia
10. Nitrogen stimation is done by...  
(a) Kjeldahl method (b) Gasometry (c) Karl fischer (d) None of these

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

## Students Thought



### The New Beginning

"Though no one can go back and make a brand new start, anyone can start from now and make a brand new ending" as truly said by Carl Bard.

We can always restart our life. Don't wait for the right time, just start it and make it right. Make a fresh start today! Life is precious and we need to make the best use of it. No matter what happens, there's always a time and a reason to make a new beginning. Now a question arises how to start over in life?

Following are few tips and steps which will help is to prepare ourselves for a new life:

- 1. Stay focused** - We need to remind ourselves to be strong and determined as focus help us to achieve a good start.
- 2. Positivity** - Good and positive thoughts can impact our action.
- 3. Be peaceful** - A calm and composed mind help us to be peaceful and productive.
- 4. Be aware** - Life is full of surprises. Opportunities may knock our door anytime we only need to be aware to grab the opportunities.
- 5. Except the best** - We should have high expectations. "It is never too late to be what you might have been."

**Shreya Jain, B. Pharm 2<sup>nd</sup> Sem**

### EVERYONE IS IMPORTANT

One day professor came to class and gave his student a surprise test. All students read all the questions in the test but were surprised to see the last question in the test.

Question was: What is the first name of woman who cleans school ?? Students were confused seeing this question and thought that this might be some kind of joke. Students took test but all of them left last question blank.

After finishing test one of student got up and asked if the last question would count toward the quiz grade. Professor smiled and said , "Absolutely." Another student said , "Sir , I have seen her many time but how would I know her name??"

Professor said , " In your careers , you will meet many people and all of them are significant . They each deserve your attention and care, even if all you do is smile and say Hello."

**MORAL:** Everyone person is significant and deserve .

**Barnamaya Jana, B. Pharm 4<sup>th</sup> Sem**



**Biosensors And Clinical Diagnosis**

A Biosensor is an analytical device used for the detection of a chemical substance that combines a biological component with a physicochemical detector. The sensitive biological elements (tissue, microorganism, organelle, cell, receptor, antibodies, nucleic acid etc.)

The history of Biosensors dates back to as early as 1906 when M. Cremer demonstrated that the concentration of an acid in a liquid is proportional to the electric potential that arises between parts of the fluid located on opposite sides of a glass membrane. The first 'true' biosensor was developed by Leland C. Clark Jr. in 1956 for oxygen detection. He is known as the 'Father of Biosensors'.

A Biosensor typically consists of a bio-recognition site, biotransducer component and electronic system which include a signal amplifier, processor and display. The recognition component often called a bioreceptor uses biomolecules from organisms or receptors modeled after biological system to interact with the analyte of interest. This interaction is measured by biotransducer which outputs a measurable signal proportional to the presence of the target analyte in the sample.

In the discipline of medical science, the application of biosensors is growing rapidly. Glucose biosensors are widely used in diagnosis for diabetes mellitus. Biosensors are being used pervasively in the medical field to diagnose urinary tract infection. A novel biosensor based on hafneium oxide (HfO<sub>2</sub>), has been used for early stage detection of human interleukin (IL)-10. The human papilloma virus (HPV) related to cervical cancer can be rapidly detected using a novel leaky surface acoustic wave peptide nucleic acid biosensor.

Applications of nanomaterials in biosensors provide opportunities for building up a new generation of biosensor technology. Nanomaterials improve mechanical, electrochemical, optical and magnetic properties of biosensors and are developing towards single molecule biosensors with high throughput biosensor arrays.

Future work should focus on clarifying the mechanism of interaction between nanomaterials and biomolecules on the surface of electrode or nanofilms and using novel properties to fabricate a new generation of biosensors.

**Jay Prakash Sahu, B.Pharmacy 3<sup>rd</sup> Year**

**BALANCE BETWEEN HAPPINESS & MONEY**

They wish they hadn't worked so hard. Working hard is great way to impact the world, to learn, to grow, to feel accomplished, and sometimes even to find happiness. But it become a problem when you do so at the expense of the people close to you. Ironically , we often work hard to make money for the people we care about without realizing that they value our company more than money . The key is to find as balance between doing what you love & being with the people you love , otherwise you'll look back one day & wish you'd focused more on the latter.

**Shalini Gupta 2<sup>nd</sup> sem B.pharmacy**

New Drug Approved in 2019

**Sunosi**

- Company:** Jazz Pharmaceuticals  
**Approval Status:** Approved March 2019  
**Specific Treatments:** Excessive daytime sleepiness due to narcolepsy  
**Therapeutic Areas:** Neurology, Pulmonary respiratory disease

Sunosi is supplied as a tablet for oral administration. It is administered orally upon awakening with or without food. Avoid taking Sunosi within 9 hours of planned bedtime because of the potential to interfere with sleep if taken too late in the day.

**Mechanism of Action**

Sunosi (solriamfetol) is a dopamine and norepinephrine reuptake inhibitor. The mechanism of action of solriamfetol to improve wakefulness in patients with excessive daytime sleepiness associated with narcolepsy or obstructive sleep apnea is unclear. However, its efficacy could be mediated through its activity as a dopamine and norepinephrine reuptake inhibitor (DNRI).

**Side Effects**

Headache, nausea, decreased appetite, insomnia, anxiety

**Picture Gallery**

