



Navyug Vidyabhavan Trust's
C. K. Pithawalla Institute of Pharmaceutical
Science & Research, Surat - 395007



Honourable Late. Shri. Chhotubhai K.
Pithawalla
(Founder & President)
Navyug Vidhyabhavan Trust, Surat

Editor's Message



Prof. Dr. Mahesh. G. Saralaya
Principal,
C. K. Pithawalla Institute of Pharmaceutical Science
and Research, Surat.

It gives me an immense pleasure to present the Institute CKPIPSR-bulletin 2017 proudly with its unique creation in the form of the Bi-Annual bulletin every year which serves as a platform to highlight the literary and artistic segment of the CKPIPSR-family. Besides, the bulletin forms a bridge between flowing thoughts and artistic magnification. The bulletin also highlights the educational, cultural and sports activities of the Institute.

The management and the staff have been supportive of the various activities that were undertaken by the students in view of helping them reach the pinnacle of perfection and professionalism in whatever task they took on thus strengthens our journey of achieving excellence.

The college has been simply unstoppable in its progress as it has been actively involved in various activities that have brought to light the hidden talents of the college students and staff. The highly qualified and dedicated members of staff have always stood shoulder with the Principal and it is always a pleasure to be a part of a team which strives to bring out the talents of students.

I am sure the college will scale even greater heights in the years to come and serve many more millions in the society.

Congratulations to **Ms. Falguni Rathod (Dept. of Pharmacognosy)** and **Mrs. Rachna Pandey (Dept. of pharmaceuticals), Assistant Professor, Co-editor/Coordinator of CKPIPSR Newsletter** and my team for their determined efforts in bringing out this Newsletter.

Co-editor's Message



Mrs. Rachana R. Pandey

**Assistant Professor,
(Department of Pharmaceutics)**



Ms. Falguni N. Rathod

**Assistant Professor,
(Department of Pharmacognosy)**

Dear CKPIPSR Students and Readers;

Welcome to **E-Newsletter, Volume-9, Issues-II, 2017.**

It is with great pleasure that we are here to welcome you to **CKPIPSR e-newsletter Volume 9, Issue II, 2017.**

It gives us immense pleasure in bringing out the E-newsletter. The **e-newsletter** has includes academic excellence, students achievements, scientific articles, extra-curricular activities and events organized by the institute.

We would like to express our sincere thanks to Respected Principal Sir, **Prof. Dr. Mahesh G. Saralaya** for giving us an opportunity and reliable guidance to Co-ordinate this e-newsletter. We also thank our colleagues, students and staff for their co-operation, support and encouragement during compilation of this e-newsletter.

Once again, we would like to thank all of those individuals who are, or have been, associated with the E-newsletter and we look forward to many more of publishing the E-newsletters in the future. Suggestions and Criticism for further improvement will be welcome.

We hope you all enjoy reading it as much as we do.

Gesture to Profession



Mr. Desh Bandhu Gupta, was an Indian billionaire businessman, the founder and chairman of Lupin Limited, a multinational pharmaceutical company.

Date of Birth: 8 February 1938

Place of Birth: Rajgarh, Alwar, Rajasthan, India

Occupation: as Buisnessman

Educational Track: College: Bombay University (master's degree in chemistry)

Work experience: He started his career as an associate professor at the Birla Institute of Technology and Science, Pilani, Rajasthan. He quit teaching and decided to be an entrepreneur as he was "not able to implement ideas into practice".

He came to Mumbai and worked in a small British pharmaceutical manufacturing company.

He founded Lupin in 1968 with a start-up capital of ₹ 5000 borrowing the money from his wife. The first office of Lupin was rented premises in Central Mumbai used for dispatching medicines. Later, with a loan from Central Bank of India of ₹ 8 lakh, it started a factory whose major order was to provide iron and folic acid tablets to the Government of India programmes related to mother and child healthcare.

Under his leadership, Lupin became a global pharmaceutical company whose consolidated turnover was ₹110,866 million and profit after tax was ₹18,364 million at the end of March 2014.

Gupta set up the Lupin Human Welfare & Research Foundation (LHWRF) in October 1988. LHWRF was set up with the objective of creating a reproducible and evolving model for sustainable rural development with a simple goal of uplifting families living below the poverty line in rural India.

He received a Lifetime Achievement Award during the Pharma Leadership Summit 2009.

He was also the recipient of the Ernst and Young Entrepreneur of the Year 2011 – Visionary Leader award.

He died on 26 June, 2017 at Mumbai.

Academic Excellence

SUMMER-2017 EXAM

- EIGHTH SEMESTER** – **Two** students secured more than 8 SPI while **ten** students secured more than 7 SPI in Summer-2017 exam.
- SIXTH SEMESTER** – **Eleven** students secured more than 8 SPI while **twenty four** students secured more than 7 SPI in Summer-2017 exam.
- FOURTH SEMESTER** – **Eight** students secured more than 8 SPI while **ten** students secured more than 7 SPI in Summer-2017 exam.
- SECOND SEMESTER** – **Eight** students secured more than 8 SPI while **twenty three** students secured more than 7 SPI in Summer-2017 exam.

MERITORIOUS STUDENTS

CLASS	RANK	NAME OF STUDENT	SPI
SEMESTER-VIII	1	Zeba Shaikh	8.27
	2	Misbah Qadri	8.09
	3	Sandeep Jangra	7.91
SEMESTER-VI	1	Nihari Patel Jyoti Jangid	8.64
	2	Yasmin Rangwala	8.45
	3	Bansari Patel Vyoma Patel	8.36
SEMESTER-IV	1	Chandani Singh	9.00
	2	Safiya Hakeem	8.55
	3	Rakesh Sahani Archi Patel Krishna Rangrej	8.27
SEMESTER-II	1	Sonal Singh	8.89
	2	Rushali Shah	8.56
	3	Devanshi Patel	8.53

STATE WISE GTU RANKING OF THE INSTITUTE , GANDHINAGAR (2016-17)

SEMESTER	% OF RESULT OF INSTITUTE	INSTITUTE WISE RANK
8 th	58.62%	46
6 th	72.00%	24
4 th	50.79%	33
2 nd	63.33%	21

Feathers on the Crown

CONFERENCES/ SEMINARS/ WORKSHOP ATTENDED BY FACULTY

- ✚ Dr. Dr. M. G. Saralaya was honoured as Guest speaker at GSPC Sponsored two days seminar on “Refresher Course for Registered Pharmacists” at Bhagwan Mahavir College of Pharmacy, Surat on 15th and 16th April, 2017.
- ✚ Ms. Zoya Shaikh (Delegate) attended one day Seminar on “one day placement workshop on soft skill developement” at Meril Academy, Vapi on 22nd March, 2017.
- ✚ Dr. Ashok Akbari (Resource person) attended GSPC Sponsored “Two Days of Refresher Course for Registered Pharmacists” at Shree Naranjibhai Lalbhai Patel College of Pharmacy, Umarakh on 22nd and 23rd April, 2017.
- ✚ Dr. Ashok Akbari (Resource person) attended GSPC Sponsored “Two Days of Refresher Course for Registered Pharmacists” at Bhagwan Mahavir College of Pharmacy, Surat on 16th and 17th April, 2017.

CONFERENCES/SEMINARS/WORKSHOP ATTENDED BY STUDENTS & ACHIVEMENTS

- ✚ Five students of 7th semester and six students of 4th semester participated in competitions like treasure hunt, power point presentation, model presentation, hunt the book etc., at “APOCALYPSE 2017” organized by K. B. Institute of Pharmaceutical & Research, Gandhinagar on 28th and 29th March, 2017. Students got:
 - 1st Prize (Treasure hunt): Vyoma Patel,
Bansari Patel,
Lohia Naman,
Baria Niketa
- ✚ Twelve students of 7th semester participated in competitions like model presentation, pharma recipe, poster presentation etc., at “ Pharmavision: 2020 by Arihant school of pharmacy and Bio-research institute, Gandhinagar on 9th and 10th September, 2017.
 - 2nd Prize (Model Presentation, Pharma recipe): Bamania Prem
Thakkar Hiren
Tiwari Ankit
Vanechha Swati

Publications

- A research on “**Pharmacognostic Studies and HPLC Analysis of Roots of *Helicteres isora* (L.)**” by Pinal A. Harde and Mamta B. Shah; Pharmacognosy Journal, Vol 9, Issue 4, Jul-Aug, 2017

Upcoming Events

1. CONFERENCES

- Annual Conference of Indian Pharmacological Society(IPSCON - 2017) at NMIMS – SPPSPTM, Bhaidas auditorium, Gulmahor road, vile parle west, Mumbai on 15 - 17th February, 2018
- Annual Conference of 69th Indian Pharmaceutical Congress (IPC - 2017) at Chitkara University Rajpura, Punjab on 22nd -24th December, 2018

Upcoming Events at Institute

2. GUEST LECTURES

- Product Management for Pharma Students and Career Opportunities in Pharma Marketing by Dr. Vipul Patel – on 17TH January 2018.
- Pharmacist be an Entrepreneur by Mr. Praful – on 23rd January 2018.

3. SPORTS

- Cricket, volley ball, kabaddi and tug of war for boys and box cricket, badminton, volley ball, kho-kho and tug of war for girls – from 20th February to 23rd February 2018.

4. EXTRA-CURRICULAR

- Craft making-quilling competition, advertisement making, rangoli, skit, hidden talent show, bookies and instant healthy recipe - from 29th January to 6th February 2018.

5. NSS ACTIVITY

- Public awareness camp on account of World Leprosy Eradication Day - on 30th January 2018
- Seminar on Breast cancer and Ovarian cancer – on 4th February 2018.
- International Women’s Day – on 8th March 2018.

6. RECRUITMENT DRIVE

- Recruitment drive for final year and passed out students – recruiters - Apollo Pharmaceuticals Pvt. Ltd., RN Laboratory Pvt. Ltd., Globela Pharma Pvt. Ltd., Zota Healthcare Ltd., and Advent Med. – on 25th January 2018.

7. HEALTH CHECK UP CAMP

- Health check-up camp as a tribute to Late Shri. Chhotubhai K Pithawalla - on 2nd march 2018.

8. ANNUAL DAY

- Annual Day celebration – on 9th March 2018.

Guest Lectures

- A guest lecture on the topic of **“Foreign education benefits & ways”** by Mr. Amlan Chakravorty, CEO at Columbus Evolve, Surat was organized on 6th July, 2017.



- A guest lecture on a topic of **“Say no to alcohol for better and healthy society”** by Mr. Mehul Lohar, Mr. Umesh Desai, Mr. Ullas and Mr. Jakel Patel, Alcoholics Anonymous, Surat was organized on 20th July, 2017.



- A guest lecture on a topic of **“Life Science skill Developments and its benefits”** by Mr. Sudhanshu Gupta, Mr. Vijo Joy, Mr. B. Sharan Sharma, Indrashil institute of science & technology, Cadila pharmaceutical ltd, Ahmedabad, Surat was organized on 1st September, 2017.



Industrial Tour- Some Sweet Memories

An Industrial Tour was organized at Saitech Medicare Pvt. Ltd, on 2nd January 2018 for Semester VIII students, to make students aware about various activities related to pharmaceutical companies.

The company is located in the foot hills of Shivalik Range at Kala Amb, a tax haven zone, 100% Excise Free Area and just levy 1% CST against Form C.

The team left for visit and took about 3 hours to cover distance from Chandigarh. In the company team was guided by Ms. Shivani to the orientation of visit. After introduction, students were divided into two groups and were guided by manager of the company.

The tour proved to be an actual experience of company's working and helped to convert the theoretical



SWACCHHTA HI SEVA

In accordance with the initiative of Government of India (Swacchhta Hi Seva), activities such as 'Cleanliness drive', 'Plantation' and cleanliness pledge were being conducted at C.K.P.I.P.S.R. campus from 15th Sept.2017 to 2nd October 2017.



INDUSTRIAL VISIT

C.K. Pithawalla Institute of Pharmaceutical Science and Research had organized an Industrial Visit to **Sovereign Pharma (Daman)** for VII semester students on 15th July 2017.



PRIZE AND CERTIFICATE DISTRIBUTION





INDUCTION PROGRAMME

On 29th September 2017, INDUCTION PROGRAM was being organized at C.K. Pithawalla Institute of Pharmaceutical Science and Research campus for the first year students (batch- 2017-18). The event consisted of a welcome speech which was delivered by our respected and beloved principal sir. This was followed by the welcoming of newcomers by 3rd semester students.



THALASSEMIA CAMP

On November 14, 2017, C.K. Pithawalla Institute of Pharmaceutical Science and Research scheduled a 'THALASSEMIA TESTING CAMP' for the first year B.Pharm students (batch- 2017-18), in accordance with the National Service Scheme, in association with "Indian Red Cross Society".



PHARMACY WEEK

Pharmacy week was celebrated with great zeal at C.K. Pithawalla Pharmaceutical Science and Research from 20th Nov 2017 to 24th Nov 2017. During this various events were organized including Poster presentation, Essay competition, Model presentation, Quiz and debate.

1. ESSAY COMPETITION



2. QUIZ COMPETITION



2. DEBATE COMPETITION



3. POSTER PRESENTATION



INDUSTRIAL TRAINING

Our institute organized industrial training for VII semester students at ZOTA HEALTHCARE LTD. and GLOBELA PHARMA LTD.

Scientific Articles

Pharmacognostic Studies and HPLC Analysis of Roots of

Helicteres isora (L.)

Pinal A. Harde and Mamta B. Shah

Abstract

Background: The juice of roots of *Helicteres isora* Linn. has been widely used as an anti-diabetic in traditional medicine. **Objective:** The present study deals with pharmacognostical studies and determination of oleanolic acid from the roots of *H. isora* by new HPLC method. **Materials and methods:** Detailed study of morphological, microscopical characteristics, physicochemical parameters and phytochemical screening of roots were carried out. The sapogenins were isolated from the roots of *H.*

isora. RP-HPLC method was developed and validated for estimation of oleanolic acid from the sapogenins of roots of *H. isora*. **Results:** Detailed quality control parameters of roots of *H. isora* were reported. Total content of oleanolic acid was 0.075%w/w from roots of *H. isora* determined by HPLC. **Conclusion:** The present study is useful for accurate identification and authentication of roots of *H. isora*. The HPLC method for determination of oleanolic acid from the roots of *H. isora* is efficient, precise, reliable and sensitive and can be adopted for routine analysis.

Hobby Corner

1. POETRY

P eople in pain can be cross as a rule
H owever, the Pharmacist helps them keep their cool
A lways your friend, he often gives free advice
R emember his service when you consider the price
M any years he has trained before he could start
A nd more importantly, he's got a great big heart
C ertainly his is the most trusted profession
I t's your health that is his obsession
S o the next time you see him, give him a smile
T reat him nicely, you'll get it back by a mile
S urely, he'll keep you healthy, at least for a while!

Ms. Zoya Shaikh

2. PAINTING



Namrata Thakur (5th semester)



Niketa Baria (7th semester)



Krishna Rangrez (5th semester)



Archi Patel (5th semester)

Extra-Curricular Activities

Number of extra-curricular activities including Indoor sports celebration, Teacher's day celebration, Industrial visit, Yoga Days celebration, NSS Activities (Campus Cleaning, Patriotic events, essay competition), various competitions like Mehndi, Drawing, FoodyFunda, Rangoli, Best out of waste, Hair style, were organized by institute during academic Year 2017.

INDOOR SPORTS





BEST OUT OF WASTE



FOODY FUNDA



HAIR STYLE



DEBATE



DRAWING



ONE MINUTE GAMES



QUIZ



NAVRATRI CELEBRATION



PATRIOTIC SONG



MEHENDI



Synthetic Nanoparticles Against Bacterial And Fungal Pathogens

Dr. Bhumika Desai and Dr. M. G. Saralaya

Bacterial infectious diseases are serious health problems that has drawn the public attention in worldwide as a human health threat, which extends to economic and social complications. Increased outbreaks infections of pathogenic strains, bacterial antibiotic resistance, emergence of new bacterial mutations, lack of suitable vaccine in underdeveloped countries, and hospital associated infections, are global health hazard to human, particularly in children. For example, infections by *Shigella Flexneri* caused 1.5 million deaths annually, due to contaminate food and drinks by these bacteria. Thus, developing novel antibacterial agents against bacteria strains, mostly major food pathogens, such as *Escherichia coli*, *Campylobacter jejuni*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Enterococcus faecalis*, *Salmonella typhi* and *Clostridium perfringens*, has become utmost demand.

Recent advances in the field of nanotechnology, particularly the ability to prepare highly ordered nanoparticulates of any size and shape, have led to the development of new biocidal agents. Nano-materials are called “a wonder of modern medicine”. It is stated that antibiotics kill perhaps a half dozen different disease-causing organisms but nano-materials can kill some 650 cells. Metal nanoparticles have various functions that are not observed in bulk phase and have been studied extensively because of their exclusive catalytic, optical, electronic, magnetic and antimicrobial wound healing and anti-inflammatory properties. Over the past few decades, inorganic nanoparticles, whose structures exhibit significantly novel and improved physical, chemical, and biological properties and functionality due to their nano-scale size, have elicited much interest.

Recent studies have shown that nanoparticles of some materials including metal oxides, can induce cell death in eukaryotic cells and growth inhibition in prokaryotic cells due to cytotoxicity. Among the metal oxide nanoparticles, zinc oxide is interesting because it has vast applications in various areas such as optical, piezoelectric, magnetic, and gas sensing. Besides these properties, ZnO nanostructure exhibits high catalytic efficiency, strong adsorption ability and are used more and more frequently in the manufacture of sunscreens, ceramics and rubber processing, wastewater treatment, and as a fungicide. In fact, nZnO usage may overtake nano-titanium dioxide (nTiO₂) in the near future as it can absorb both UV-A and UV-B radiation while nTiO₂ can only block UV-B, and thereby

offering better protection and improved opaqueness. Several physical and chemical procedures have been used for the synthesis of large quantities of metal nanoparticles in relatively short period of time. Chemical methods lead to the presence of some toxic chemicals adsorbed on the surface that may have adverse effects in medical application. Currently, plant-mediated biological synthesis of nanoparticles is gaining importance due to its simplicity, eco-friendliness and extensive antimicrobial activity. Biosynthesis of zinc oxide nanoparticles by plants such as Aloe vera and gold nanoparticles by alfalfa, Cinnamomum camphora, neem, Emblica officianalis, lemongrass and tamarind have been reported. Antimicrobial activities of metal oxide (ZnO, MgO and CaO) powders against Staphylococcus aureus, Escherichia coli, or fungi were quantitatively evaluated in culture media. It is considered that the detected active oxygen species generated by these metal oxide particles could be the main mechanism of their antibacterial activity.

Only few studies have been performed to assess the effects of nanoparticles on fungal pathogens and against S. aureus and E. coli. As, nanosilver has been used for imparting antibacterial properties, nano-TiO₂ and the oxides of other nano-materials like CdO and ZnO have also been reported for antibacterial

Overall, the nano-materials, based on the metal oxide ions, exhibit broad-spectrum biocidal activity towards different bacteria, fungi, and viruses and have a distinct advantage over conventional chemical antimicrobial agents. In this study, we have demonstrated the enhanced bioactivity of green synthesized ZnO nanoparticles by studying the antimicrobial activity of suspensions with various other formulations using a standard microbial method. The growth inhibition was solely higher in biologically synthesized ZnO than chemical ZnO nanoparticle and other common antimicrobials. The enhanced bioactivity of smaller particles is attributed to the higher surface area to volume ratio.

References :

Amna Sirelkhatim^{1,*}, Shahrom Mahmud¹, Azman Seen², N.H.M. Kaus³, Ling Chuo Ann¹, Siti Khadijah Mohd Bakhori¹, Habsah Hasan⁴, Dasmawati Mohamad⁵, Review on Zinc Oxide Nanoparticles: Antibacterial Activity and Toxicity Mechanism Micro Letters, July 2015, Volume 7, Issue 3, pp 219-242.

Sangeetha Gunalan, Rajeshwari Sivaraj and Venckatesh Rajendran, Progress in natural science: Materials International, volume 22, Issue 6, December 2012, Pages 693-700.