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MALWANCHAL UNIVERSITY
(INDEX GROUP OF INSTITUTIONS)

MALWANCHAL MIRROR

QUATERLY BULLETIN

Index
Institute of Pharmacy

Our mission was never just to teach or to treat. It was to empower, to uplift, and to lead change.

Mrs. Gauri Singh Bhadoria
Chancellor,
Malwanchal University

FROM THE DESK OF PRINCIPAL...

Dr. Javed Khan Pathan
Principal, Index Institute of Pharmacy

It gives me immense pleasure to address you through this Pharmacy Bulletin. At Index Institute of Pharmacy, we remain committed to nurturing competent, ethical, and innovative pharmacy professionals who contribute meaningfully to healthcare and society. Our institution continuously strives for academic excellence through quality teaching, advanced research initiatives, skill-based training, and industry-oriented programs.

We take pride in the achievements of our students and faculty in academics, research publications, seminars, workshops, and community outreach activities. With a focus on holistic development, we encourage participation in co-curricular and extracurricular activities that enhance leadership, teamwork, and professional skills.

The field of pharmaceutical sciences is dynamic and research-driven. We encourage our students and faculty to engage in continuous learning, scientific inquiry, and skill enhancement to remain at the forefront of innovation.

As the field of pharmaceutical sciences evolves rapidly, it is essential for us to embrace innovation, digital advancements, and research-driven practices. Let us continue to work together with dedication and integrity to uphold the values and vision of our institution.

I extend my best wishes to all students and faculty members for their continued success and bright future in the noble profession of pharmacy.

CAMPUS NEWS

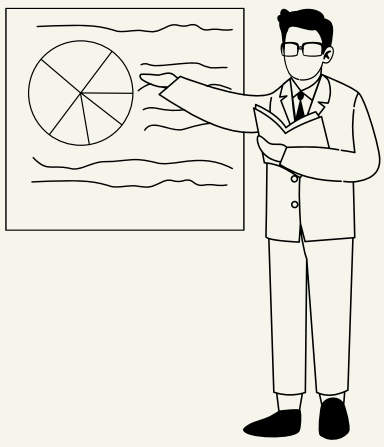
EXPERT LECTURE
Importance of Collaboration between Academics & Industries

A seminar on “Importance of Collaboration between Academics & Industries” was organized at Index Institute of Pharmacy to highlight the significance of bridging the gap between theoretical knowledge and practical application in the pharmaceutical sector. The session emphasized how industry–academia partnerships enhance research opportunities, skill development, internships, and placement prospects for students.

An event focusing on strengthening collaboration between industry and academia was organized at Index Institute of Pharmacy with the objective of bridging the gap between academic learning and industrial requirements. The program witnessed the participation of industry experts, faculty members, and students.

Collaboration provides internships, industrial training, live projects, and workshops that enhance technical and soft skills, making students industry-ready.

The speaker elaborated on current industry expectations, emerging technologies, and the need for innovation-driven research. Students were encouraged to engage in industrial training, live projects, and collaborative research initiatives to strengthen their professional competencies.
The program concluded with an interactive discussion, motivating students and faculty members to foster strong industry connections for academic excellence and career advancement in pharmaceutical sciences.



CAMPUS NEWS

DIWALI MEET

Diwali Meet celebrations in a college play an important role in promoting cultural values, unity, and a sense of belonging among students and staff. Diwali, the festival of lights, symbolizes positivity, knowledge, and the victory of good over evil, making it meaningful in an educational environment.

The Diwali Meet was celebrated with great enthusiasm and festive spirit at Index Institute of Pharmacy. The event aimed to promote cultural values, unity, and joy among students, faculty, and staff members. The campus was beautifully decorated with diyas, rangoli, and lights, creating a vibrant and traditional atmosphere. A Diwali Meet enhances unity, cooperation, and a positive campus environment, strengthening the overall institutional culture.

The program commenced with a welcome address by the Principal, who highlighted the significance of Diwali as a festival symbolizing the victory of light over darkness and good over evil. Various cultural performances, including dance, music, and skits, were presented by students. Fun activities and games added excitement to the celebration.

The event concluded with the distribution of sweets and heartfelt wishes, strengthening bonds and fostering a sense of togetherness within the institute.

Impact of Clinical Research in Pharmaceutical Science

A seminar on “Impact of Clinical Research in Pharmacy” was organized at the Index Institute of Pharmacy to enhance students’ understanding of the role of clinical research in modern pharmaceutical science. The program aimed to create awareness about the importance of clinical trials, drug safety, and the contribution of research in improving healthcare outcomes.

During the session, experts explained that clinical research plays a vital role in evaluating the safety, efficacy, dosage, and side effects of new drugs before they are approved for public use. Clinical trials help researchers identify effective treatments and ensure that medicines meet regulatory and quality standards.

The speaker also highlighted how clinical research bridges the gap between laboratory discoveries and patient care. It enables the development of innovative therapies for various diseases and contributes significantly to evidence-based medicine. Pharmacists and researchers play an essential role in clinical trials by monitoring drug therapy, ensuring protocol compliance, and improving medication safety.

The event concluded with an interactive discussion session where students clarified their doubts regarding clinical trials and research opportunities in the pharmaceutical industry. The program was highly informative and motivated students to actively participate in research activities, contributing to the advancement of pharmaceutical science and healthcare.

FACULTY CORNER

Medicinal Chemistry: Importance and Applications

Ms Priyanka Rawat
Assistant Professor
Index Institute of Pharmacy

Medicinal chemistry is a crucial discipline that shapes the academic and professional competencies of future pharmacists. To bring students up to date with the latest developments in pharmaceuticals, the institution is dedicated to incorporating cutting-edge trends like computer-aided drug design, targeted drug delivery, and personalized medicine into the curriculum. Given their increasing medicinal value, emphasis is being placed on the scientific understanding and standardization of herbal medicines. In order to instill environmentally conscious habits in students, the university raises knowledge of green chemistry and sustainable medication production. The institution seeks to close the gap between theoretical knowledge and real-world application through interdisciplinary learning, case-based debates, and student-centric teaching strategies. In general, the institute aims to offer a cutting-edge educational setting that equips students to successfully address contemporary healthcare and research concerns.

Marie Curie – The Scientist Who Changed the World

Marie Curie was one of the most inspiring scientists in history. Born in 1867 in Poland, she faced many challenges, especially because women were not allowed to study higher education in her country at that time. Despite difficulties, she moved to Paris and studied at the University of Paris, where her journey in science truly began.

Marie Curie is famous for her groundbreaking research on radioactivity (a term she herself coined). Along with her husband Pierre Curie, she discovered two important elements — polonium and radium. Her research opened new paths in medical science, especially in cancer treatment through radiation therapy.
She became the first woman to win a Nobel Prize and remains the only person to win Nobel Prizes in two different scientific fields — Physics (1903) and Chemistry (1911). This achievement shows her extraordinary dedication and intelligence.

During World War I, she also helped develop mobile X-ray units to treat injured soldiers, proving that science should serve humanity.

Marie Curie's life teaches us that determination, passion, and hard work can break any barrier. She once said, "Nothing in life is to be feared, it is only to be understood."

Her story continues to inspire scientists, students, and especially women in science across the world.

Ms Aakansha Bhadoriya
Assistant Professor
Index Institute of Pharmacy

FACULTY CORNER

Integration of Artificial Intelligence in Drug Research and Development

Ms. Megha Gupta
Assistant Professor
Index Institute of Pharmacy

Artificial Intelligence (AI) is transforming drug research and development by accelerating discovery, improving accuracy, and reducing costs. Traditional drug discovery is a lengthy and expensive process that often takes more than a decade, but AI-driven approaches can significantly shorten this timeline. Advanced machine learning and deep learning models analyze vast datasets of chemical structures, biological targets, and clinical outcomes to identify promising drug candidates with higher precision.

AI-powered tools such as molecular docking software, predictive toxicity platforms, and virtual screening systems enable researchers to evaluate millions of compounds in silico before laboratory testing. Predictive models can forecast pharmacokinetics, bioavailability, and adverse effects, minimizing trial-and-error experimentation. Natural language processing algorithms also assist scientists by rapidly extracting relevant insights from scientific literature and clinical trial databases.

Furthermore, generative AI models can design novel molecular structures optimized for specific therapeutic targets, opening new possibilities for personalized medicine and rare disease treatment. By integrating computational intelligence with pharmaceutical research, AI enhances decision-making, reduces failure rates in clinical trials, and promotes efficient resource utilization. Overall, the adoption of AI in drug development is revolutionizing the pharmaceutical industry and paving the way for faster discovery of safe, effective, and innovative medicines.

STUDENT CORNER

PHARMACY IN PERSONALIZED MEDICINE

Muskan Gurjar
Students of B. Pharma
Index Institute of Pharmacy

Personalized medicine, also known as precision medicine, Pharmacy in Personalized Medicine

Personalized medicine, also known as precision medicine, is transforming healthcare by tailoring treatments to an individual's genetic makeup, lifestyle, and environment. Pharmacists are central to this shift; ensuring medications are selected and dosed based on a patient's unique profile for maximum efficacy and safety.

Key aspects include:

- Pharmacogenomics: Studying genetic variations that influence drug metabolism and response.
- Genetic testing: Identifying biomarkers to predict how well a patient will respond to a medication.
- Customized therapies: Adjusting drug choices and doses based on genetics, environment, and lifestyle.

Role of pharmacists:

- Interpreting genetic data to guide drug selection and dosing decisions.
- Counseling patients on personalized treatment plans and potential risks.
- Collaborating with doctors and specialists to optimize therapy outcomes.

Benefits:

- Improved efficacy and reduced adverse drug reactions.
- Enhanced patient adherence due to tailored treatments.
- Potential cost savings through targeted, effective therapies.

Challenges include integrating complex genetic data into practice and ensuring equitable access to testing. However, as pharmacogenomics advances, pharmacists will lead in applying genetic insights to patient care, advancing precision healthcare.

STUDENT CORNER

MAHADEVLAL SHROFF

Nitisha Jodhana
Students of B Pharma
Index Institute of Pharmacy

Mahadevlal Shroff was a pioneering Indian pharmaceutical scientist and educator who played a crucial role in establishing pharmacy education in India. He is often referred to as the "Father of Pharmacy Education in India."

Mahadevlal Shroff made remarkable contributions to the development of pharmacy education in India and is widely regarded as the Father of Pharmacy Education in the country. He established the first degree course in pharmacy at Banaras Hindu University in 1937, laying the foundation for formal pharmaceutical education. He introduced a structured curriculum that included pharmaceutical chemistry, pharmaceutics, pharmacology, and practical training. His efforts promoted research, professional ethics, and the importance of trained pharmacists in healthcare. Through his vision and dedication, he helped develop skilled professionals and inspired the growth of pharmacy institutions across India, strengthening the pharmaceutical education system.

To honor his contributions, National Pharmacy Education Day is celebrated every year on 6 March, the birth anniversary of Mahadevlal Shroff, to recognize his role in shaping pharmacy education in India.

STUDENT CORNER

PRAFULLA CHANDRA RAY - A man behind the discovery of hydroxychloroquine

Rajveer Panwar
Student of B Pharma
Index Institute of Pharmacy

Acharya Prafulla Chandra Ray (P.C. Ray) wasn't just a scientist; he was a visionary who realized that for India to be truly independent, it needed to be self-reliant in medicine. Often called the "Father of Indian Chemistry," his impact on pharmacy shifted India from a buyer of expensive foreign drugs to a producer of its own.

1. The Birth of the Indian Pharma Industry

Before P.C. Ray, India was almost entirely dependent on imported medicines from Europe. In 1892, with a meager capital of ₹700, he started Bengal Chemical & Pharmaceutical Works (BCPW) in his own home.Pioneering Entrepreneurship: He transformed a small laboratory into India's first government-recognized pharmaceutical company.

2. Chemical Inventions & Discoveries

While Ray was a pharmacist at heart, his core was pure chemistry. His most famous scientific breakthrough occurred in 1896.

Ammonium Nitrite: He was the first to synthesize pure Ammonium Nitrite in a stable form, proving that it could exist without decomposing —a feat that had baffled chemists for years.

Research on Sulfides: He conducted extensive research on organic thio-compounds and the varying valencies of gold, platinum, and iridium.

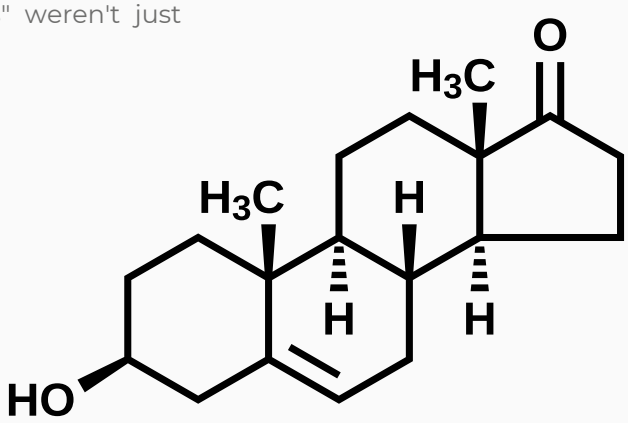
3. Contribution to Ayurveda and History

Ray didn't just look forward; he looked back. He believed that ancient Indian knowledge held the keys to modern pharmacology.

"A History of Hindu Chemistry": He wrote this monumental two-volume work to document the advanced chemical and pharmaceutical practices of ancient India.

4. Legacy of Inventions

Ray didn't patent his inventions for personal profit. Instead, he shared his findings to foster a culture of research. His "inventions" weren't just chemicals, but the infrastructure of Indian science



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EDITORIAL CORNER

Every page of Malwanchal Mirror captures growth, innovation, and the heart of our institution.

Mr. Sankalp Ojha
Editor

Malwanchal Mirror's design celebrates learning, achievement, and the vibrancy of campus life.

Mr. Pranav Sharma
Creative Designer

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