AIP e Newsletter

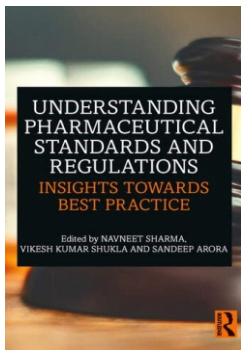
Pharma Panorama ● An Official @ Newsletter of AIP Noida

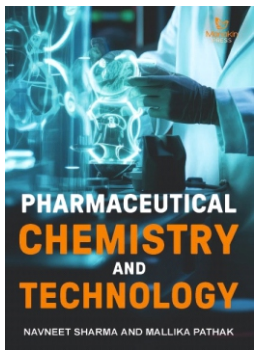
AMITY UNIVERSITY NOIDA CAMPUS

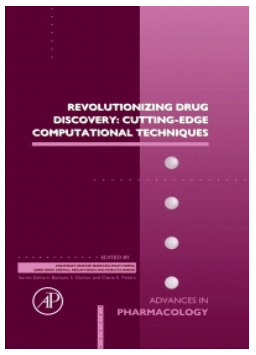
AMITY INSTITUTE OF PHARMACY

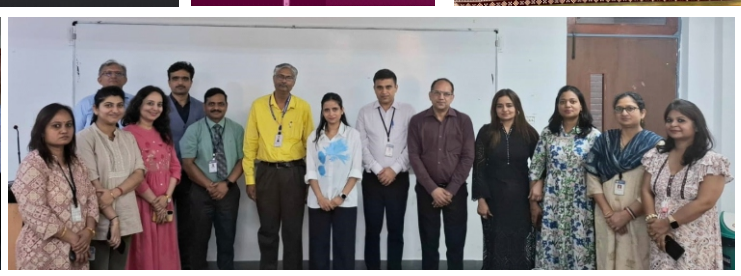
Volume II, Issue II (April - June 2025) **ISSN: 3049-0944 (Online)**

Main Attractions.....









Student Activities

HIGHLIGHTS OF THE CURRENT ISSUE

Faculty Achievements

- Dr. Indu Singh, Patent granted on : Controlled Release Parentral Pharmaceutical Composition of Antipsychotic Agent
- Dr. Kalpana Nagpal, Appointed as member of International Science Council for 2 years
- Dr. Ramanpreet Walia, Member Asian Council of Science Editors for 2 years.
- Dr. Tanveer Naved, Invited in 8th International Health and Wellness Conference & Exhibition at Pragati Maidan, Delhi
- Dr. Sangeetha Gupta received “Excellence in Research Award” for her contribution in Pharmacology by Vigyan Varta Foundation

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Invited Guest Editorial

THE UNIVERSITY OF WESTERN AUSTRALIA

School of Health and Clinical Sciences
Department of Pharmacy

Reflections on the Evolving Priorities of Pharmacy Education: A Personal and Professional Perspective

In February of this year, I had the privilege of visiting Amity University and engaging in insightful discussions with staff and students at the Department of Pharmacy. These interactions were not only intellectually stimulating but also prompted a deeper reflection on the trajectory of modern pharmacy education, its evolving priorities, regional differences and the implications these shifts hold for the future of the profession.

During my pharmacy degree at the Eberhard Karls University in Tübingen (Germany), I was trained within a curriculum strongly anchored in the natural and pharmaceutical sciences, which constituted the backbone of my education. At that time, the role of pharmacists was still very much tied to their identity as natural scientists and medicine experts. Thus, subjects such as chemistry and pharmaceutics but also pharmacognosy were afforded considerable depth and rigour, not only in theory but also in practice.

When I transitioned into academia in Australia in the early 2000s, I initially experienced a similar curricular structure. However, over the past 25 years, I have witnessed and actively participated in a significant transformation of pharmacy education in Australia. Multiple curriculum reviews and strategic revisions have gradually shifted the emphasis away from the traditional natural and pharmaceutical sciences more strongly towards pharmacy practice and clinical pharmacy. This evolution has not been without consequence. Among the first ‘casualties’ of this change were the pharmacognosy laboratory classes, soon followed by lectures and tutorials in the subject. In more recent years, pharmaceutical chemistry laboratory classes have also been axed and the chemistry curriculum as a whole has been considerably pared back.

As someone whose formative training and academic identity are firmly rooted in the pharmaceutical science, holding a PhD in heterocyclic synthetic chemistry and, as Head of our Department’s Honey Research Lab, having a strong research track record in natural product chemistry, I have mixed feelings about these changes. On the one hand, I recognise the need for the pharmacy curriculum to remain responsive to the changing demands of healthcare systems and the expanding scope of the profession. On the other hand, I am concerned about the long-term implications of de-emphasising natural science foundations that underpin so many aspects of the profession, not least innovation in medicine development and evaluation.

The rationale behind the curricular shifts in pharmacy education in Australia is often practical: Most pharmacy graduates pursue careers in community and hospital pharmacies where in-depth knowledge of chromatographic methods or phytochemical assays may not be immediately relevant. Moreover, Australia’s comparatively limited pharmaceutical manufacturing sector offers few employment opportunities that demand advance laboratory-based skills or pharmaceutical sciences expertise. In this context, the argument to allocate more curriculum time to practice-base competencies, such as patient counselling, medication review and clinical decision-making, becomes persuasive.

Indeed, Australia has emerged as a leader in redefining pharmacists’ role in primary care. With an expanding scope of practice, Australian pharmacists now play central roles in immunisation programs, participate in collaborative prescribing (e.g. UTI treatments and oral contraception), may offer specialist services in the management of chronic diseases, for example in diabetes education, and are engaged in health promotion. Increasingly they also work as part of interdisciplinary teams, not only in community and hospital settings, but also in emerging fields such as general practice clinics and aged care facilities. These advanced roles require an education that is more focused on clinical reasoning, communication and the development and interpretation of therapeutic guidelines, competencies that must be reflected in contemporary pharmacy curricula.

From a global perspective, Australia’s curricular priorities may appear out of step with pharmacy programs in other countries, including India, where natural and pharmaceutical sciences continue to hold a central place in pharmacy education. This divergence raises important questions: Is there an ideal balance between science and practice in pharmacy curricula? Should curricular design be driven by global consensus or tailored to local professional realities? And crucially, how do we ensure that future pharmacists have literacy and practical competences in natural sciences and at the same time are able to keep abreast of skills and knowledge that underpin an expanding scope of practice?

In my opinion, there is no one-size-fits-all answer to these questions. Educational programs must remain sensitive to the needs of the healthcare systems in which their graduates will practice. However, as we modernise curricula to accommodate new roles, technologies and expectations, we must be careful not to lose sight of the foundational theoretical and practical knowledge that distinguishes pharmacists as experts in the development and use of medication from other allied health professionals. Teaching natural and pharmaceutical sciences not only prepares students for laboratory roles, it instils critical inquiry skills, attention to methodological rigour and, most crucially, a deep understanding of medicines as chemical and biological entities.

In the years ahead, I hope that pharmacy education, whether in Australia, in India or elsewhere, will continue to evolve in ways that acknowledge both the profession’s roots in the natural sciences and its increasingly clinical focus. In my view, this balance is essential for future proofing the profession by graduating well- rounded pharmacists that continue to be medication experts and trusted, knowledgeable health care professionals.

A/Prof Connie Locher
Head, UWA Honey Research Lab
Department of Pharmacy
School of Health and Clinical Sciences
The University of Western Australia
Crawley, WA 6009, Australia

The University of Western Australia
M315 Perth WA 6009 Australia

T +61 8 6488 3199
M 0402 397782

E connie.locher@uwa.edu.au
CRICOS Provider Code 00126G

From the Desk of Editor-in-Chief

Amity Institute of Pharmacy, Noida, Uttar Pradesh, is a prestigious institution that offers education and training in the field of Pharmaceutical Sciences. The institute was founded in 2007 with a focus on research and innovation, aligning with the mission and vision of Amity University. At present, the institute provides a Bachelor of Pharmacy program with an intake of 100 students. Additionally, we offer a Master of Pharmacy program with specializations in Pharmaceutics, Pharmacology, Pharmaceutical Regulatory Affairs, Industrial Pharmacy, Pharmaceutical Analysis, Phytopharmacy & Phytomedicine. Furthermore, we also offer a rigorous & translational research-based Ph.D. program in Pharmaceutical Sciences. The institute is renowned for producing globally proficient, competent, and knowledgeable pharmacists who contribute to self-sufficient pharmaceutical companies and serve as practicing professionals. The institute has a robust network of over 8000 alumni who provide support and guidance to graduating pharmacists, helping them traverse the dynamic, demanding, diverse pharmaceutical industry with success.

The quarterly AIP Newsletter 'Pharma Panorama', is indexed with ISSN 3049-0944, provides a comprehensive collection of academic and curricular enhancements, teaching and learning activities, additional courses, research, intellectual property rights, and other results, showcasing the achievements of students and teachers over the period of April-June 2025.

A substantial number of papers are published by students and faculty members in indexed journals with higher impact factors, and they have also submitted patents to the Indian patent office and one patent was granted on “Controlled release parenteral pharmaceutical composition of antipsychotic agent” to Dr. Indu Singh. Fourteen funded research projects from various agencies like Ayush, CCRUM etc are ongoing. As an editor, a book series was published in Advances in Pharmacology by Elsevier by Dr. Hemlata Nimesh and two Scopus indexed academic books were published by Dr. Navneet Sharma as Editor. Dr. Sangeetha Gupta received “Excellence in Research Award” for her contribution in Pharmacology by Vigyan Varta Foundation. Dr. Kalpana Nagpal is appointed as member of International Science Council for two years and was Invited as special guest at International Conference of Young Scientists & Global Young Academy (GYA) Annual General Meeting in capacity of YAS Core Committee Member, Indian Institute of Technology Hyderabad. Total of six Ph. D. Scholars successfully defended their thesis work, and three students have presented their Pre-Ph. D seminar.

Memorandum of Agreement was signed on 19th May 2025 with Temple University Philadelphia for dual degree Master’s programmes in Drug Delivery, Drug Discovery, Pharmacokinetics, and Regulatory Affairs & Quality Assurance. Interactive, motivating, and informative session were conducted by our alumni Mr. Kashish Garg and Mr. Rohan Nagpal. An Internship Fair for Pharmacy Students on a theme: Industry Internship: Paving the way to shape Careers was conducted on 3rd April 2025. 5-Days FDP on “Innovation & Intellectual Property Rights in Pharmaceutical Technology: Commercialization & Technology Transfer” was conducted from 26th May to 30th May 2025. AIP conducted a National Workshop on “Use of Machine Learning Tools and Artificial Intelligence for Effective New Drug Discovery and Development” in collaboration with Amity Centre for Artificial Intelligence.

The Workshop proved to be highly impactful, offering participants a thorough understanding of how AI and machine learning are revolutionizing pharmaceutical research. The event successfully bridged the gap between theoretical concepts and practical applications through expert talks and hands-on sessions. Another Faculty Development Programme on “Medical Device, Pharmacovigilance & Clinical Trial Regulations for Pharma & Biotech Industries” was also successfully conducted. Two dedicated students of B.Pharm IV Semester, Ms. Surbhi Arora and Ms. Vaishnavi Tyagi, undertook a month-long Global Mobility Programme on Clinical Pharmacy and Healthcare Systems at Management and Science University (MSU), Malaysia, from May 27 to June 23, 2025. This immersive experience focused on hands-on exposure to clinical case management, international healthcare systems, and pharmacy practice in both hospital and community settings of Malaysia. Our students participated in many professional activities.

Our students are placed on various positions in most reputed companies and total of 118 students have undergone internship according to their research streams and academic performance. 100% placement was achieved in all M. Pharm. Programmes, and 92% placement was achieved at B. Pharm. Level. Eight B. Pharm. students have been selected for higher education programmes by the various globally top-ranking Universities. Their exceptional performance in the interview makes them very deserving for the position they aspire to.

I am pleased to introduce the second quarterly issue of the year 2025 of 'Pharma Panorama', the official newsletter of Amity Institute of Pharmacy, Amity University Uttar Pradesh, Noida.

Dr. Havagiray R. Chitme
Head of the Institute
Amity Institute of Pharmacy

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Sr. Office Assistant, AIP

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About Us

Amity Institute of Pharmacy (AIP) is a well-established institution of Amity University, ttar Pradesh, Noida having a high profile with interdisciplinary areas of specializations in Pharmacy offering UG, PG and PhD programs. Currently, AIP offers B.Pharm program with an intake of 100 and M.Pharm programs in Pharmaceutics, Pharmacology, Drug Regulatory Affairs, Pharmaceutical Chemistry, Pharmaceutical Analysis, Industrial Pharmacy and Phyto-Pharmacy. The Institute stands amongst top institutes with NIRF ranking and leads in the top 25 institutions since past 02 years. The Institute has received several research grants over last 05 years from funding agencies like SERB, ICMR, AAYUSH, CCRUM. AIP has more than 500 Scopus/WoS listed research publications and 25 patents to its credit in the last 05 years in diverse research areas like NDDS, Medicinal Chemistry, Neuropharmacology, Phyto-pharmaceuticals, Drug Regulatory requirements and pharmaceutical analysis etc.

The thrust areas of research include novel drug delivery systems for skin disorders and burns, drug discovery and development for cancer, diabetes, autoimmune diseases, neurodegenerative diseases like Alzheimer's, Parkinson's and Global regulatory framework for drugs, medical devices etc. The Institute is situated in a centrally air-conditioned four storey building. The Institute is having well equipped laboratories, one central instrumentation lab with HPLC, UV Spectrophotometer, ELISA Reader etc and Machine Room facilities. The faculties are well trained in diverse disciplines of Pharmacy and allied areas such as Pharmacology, Pharmaceutics, Pharmacognosy, Medicinal Chemistry, Pharm. Biotechnology etc. All the faculty members regularly attend Seminars, Conferences of National and International levels as well as Staff Development Programmes and also FDP organized by Amity University.

NIRF Ranking : 22

VISION:

"To become a leading centre of excellence of pharmaceutical science and technology education to fulfil the aspiration of students and fostering translational research through technology transfer, start-ups and entrepreneurship."

OBJECTIVES:

- To be the most valued institution of pharmacy in the country
- To offer the industry-ready curriculum-based pharmacy programs
- To produce technically competent pharmacy professionals
- To meet the growing aspiration in the field of pharmacy and healthcare professionals
- To be the innovation and research driven globally competent pharmacy institute

Details of Research Centres in AIP

Prof. H. R. Chitme

Dy. Director, AIP

(Research Areas-Molecular pharmacology, Cytogenetics, Proteomics

Dr. Nitin Sharma
Professor & Centre Head – Pharmaceutics

Dr. Vikesh Kr. Shukla
Professor & Centre Head - AIP

Dr. Kalpana Nagpal
Associate Professor & Centre Head - Industrial Pharmacy

Prof. H. R. Chitme
Dy. Director & Centre Head - Pharmacology

Dr. Rajeev Kharb
Professor & Centre Head –Pharmaceutical Analysis

Dr. Viney Lather
Professor & Centre Head - AIP

Dr. Tanveer Naved
Professor & Dy. Dean

Dr. Neha Jain
AP-III

Dr. Dheeraj Nagpal
Associate Professor

Dr. Alka Lohani
Associate Professor

Dr. Sangeetha Gupta
AP-III

Dr. Ramanpreet Walia
Professor

Dr. Neerupma Dhiman
Professor

Dr. Maryam Sarwat
Professor

Dr. Rimpy Pahwa
AP-I

Dr. Shreya Kaul
AP-I

Dr. Indu Singh
AP-II

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Associate Professor

Dr. Annie Gupta
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Professor

Dr. Saurabh Mittal
AP-I

Dr. Shikha Chauhan
Associate Professor

Dr. Navneet Sharma
AP-II

Dr. Priyanka Saroj
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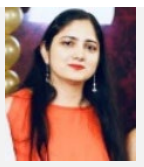


Dr. Smriti Sharma
AP-II

Dr. Prakash Haloi
AP-I

Dr. Hemlata Nimesh
AP-II

Dr. Neha Kukreti
AP-I

Faculty Achievements

Dr. Indu Singh

Granted Patent on : CONTROLLED RELEASE PARENTRAL PHARMACEUTICAL COMPOSITION OF ANTIPSYCHOTIC AGENT

Grant No. 565677 | Date : 29/04/2025

Dr. Kalpana Nagpal

Appointed as member of International Science Council for 2 years https://council.science/profile/kalpana-nagpal/

Invited as special guest at International Conference of Young Scientists & Global Young Academy (GYA) Annual General Meeting in capacity of INYAS Core Committee Member, Indian Institute of Technology Hyderabad, June 10-13, 2025,

Dr. Ramanpreet Walia

Member Asian Council of Science Editors for 2 years https://theacse.com/search.php

Dr. Tanveer Naved

Dr. Tanveer Naved, Dy. Deam, Health & Allied Sciences Domain was invited speaker at 8th International Health and Wellness Conference & Exhibition at Pragati Maidan, Delhi organized by Namo Gange Trust

Dr. Sangeetha Gupta

Dr. Sangeetha Gupta received “Excellence in Research Award” for her contribution in Pharmacology by Vigyan Varta Foundation.

Publications

S. No.	Name of Faculty/Scientist	Full Publication Details	Publisher	Level	Published (Month/Year)
1	**Dr. Alka Lohani**	Alka Lohani, Ritika Saxena, Joana Galvão Duarte, Shahbaz Khan, Ana Figueiras, Filipa Mascarenhas-Melo. Tailored polymeric hydrogels for regenerative medicine and drug delivery: From material design to clinical applications. International Journal of Pharmaceutics. 2025;125818.	Elsevier	Q1	June 2025
2	**Dr. Alka Lohani**	Francisca Pedro, Maria Beatriz. Gonçalves, Alka Lohani, Mahmoud Mirzaei, Ana Figueiras, Filipa Mascarenhas-Melo. Advancing atherosclerosis treatment: Drug encapsulation nanosystems and synthetic HDL nanoparticles. Drug Discovery Today. 2025;30(6):104370.	Elsevier	Q1	June 2025
3	**Dr. Kalpana Nagpal Chaswal**	Gupta, N., & Nagpal, K. (2025). Nuclear Nanomedicines: Utilization of Radiolabelling Strategies, Drug Formulation, Delivery, and Regulatory Aspects for Disease Management. Current Radiopharmaceuticals, 18(4), 262-282. Bentham Science 29 April 2025	Bantham Science	Q2	May 2025
4	**Dr. Kalpana Nagpal Chaswal**	Narayan, S., Gupta, P. K., & Nagpal, K. (2025). Revolutionizing Neurological Therapies: The Multifaceted Potential of Zein-Based Nanoparticles for Brain-Targeted Drug Delivery. Molecular Pharmaceutics. ACS Publications 25 May 2025	ACS Publications	Q1	May 2025
5	**Dr. Kalpana Nagpal Chaswal**	Gaur N., Parvez N., Nagpal K. Development and validation of a method of highly sensitive high-performance liquid chromatography for the quantitative determination of ketoconazole. Journal of Applied Spectroscopy. 2025; 92(2):274 Springer Nature 30 May 2025	Springer		May 2025
6	**Dr. Kalpana Nagpal Chaswal**	Bhardwaj, V., Kulkarni, G. T., & Nagpal, K. (2025). Synergyfinder drug combination screening of bioactives from Myrica esculenta and Vaccinium corymbosum on cervical cell lines. International Journal of Advances in Engineering Sciences and Applied Mathematics, 1-17.	Springer Nature		June 2025
7	**Dr. Kalpana Nagpal Chaswal**	Narayan, S., Nagpal, K., & Kumar, P. (2025). Polyphenol-conjugated polysaccharide nanoplatforms for enhanced therapeutic efficacy. Expert Opinion on Drug Delivery, 1–19. https://doi.org/10.1080/17425247.2025.2514714	Taylor & Francis	Q1	June 2025
8	**Dr. Neha Jain**	Verma, R., Jain, N., Kaul, S. et al. Assessing the potential of metallic nanocarriers as theranostics for psoriasis management: a comprehensive review. Appl Nanosci 15, 21 (2025). https://doi.org/10.1007/s13204-025-03101-1	Springer Science and Business Media, Deutschland GmBh	Q2	June 2025
9	**Dr. Neha Jain**	Kaith A, Garg U, Jain N, Pandey M, Kaul S, Gorain B, Amin MCIM. Pullulan as a sustained release carrier for ocular drug delivery: a review. Int J Biol Macromol. 2025 May;309(Pt 4):143146. doi: 10.1016/j.ijbiomac.2025.143146	Elsevier B.V Netherlands	Q1	May 2025
10	**Dr. Neha Jain**	Kumar S, Kaul S, Jain N, Jain C, Pandey M. Gouty Arthritis Treatment: Advancements in Topical LipidBased Nanocarrier Delivery Systems, Adv Pharm Bull. 2025;15(1):11-26. doi: 10.34172/apb.44012	Tabriz university of Medical Sciences, Faculty of Pharmacy	Q1	April 2025
11	**Dr. Nitin Sharma**	Sudeepa Singh, Nitin Sharma, Vijay pal Singh, Anjana Sharma. A systematic review on nano drug delivery approaches to ameliorate therapeutic values in alzheimer's disease. Current Nanomedicine, XXXX, XX, 1-14.	Bentham Science	Q3	April 2025
12	**Dr. Nitin Sharma**	Dahiya S, Sharma P, Sharma B, Saroj P, Kharkwal H, Sharma N. The Intricate Relationship of Trk Receptors in Brain Diseases and Disorders. Mol Neurobiol. 2025 May 23. doi: 10.1007/s12035-025-05058-2.	Springer Nature	Q1	May 2025
13	**Dr. Nitin Sharma**	Ashish Mehta, Anjana Sharma, Nitin Sharma, Lalit Kumar Tyagi and Vandana Arora Sethi. Recent advances and applications of green analytical chemistry in environmental monitoring, food safety, and pharmaceutical analysis. Current Green Chemistry. **DOI:** 10.2174/0122133461364164250324051123	Bentham Sciences	Q3	May 2025

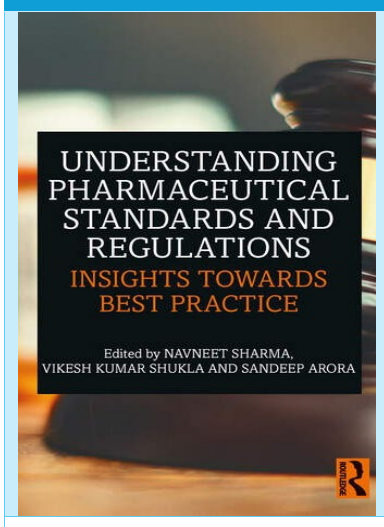
14	**Dr. Priyanka Saroj**	Dahiya S, Sharma P, Sharma B, Saroj P, Kharkwal H, Sharma N. The Intricate Relationship of Trk Receptors in Brain Diseases and Disorders. Mol Neurobiol. 2025 May 23. doi: 10.1007/s12035-025-05058-2.	Springer Nature	Q1	May 2025
15	**Dr. Puneet Gupta**	Garg, I.; Singh, N.; Neha; Harish; Barman, M.; Gupta, P.; Sharma, M. Expanding Prospects for Dermal Health with Bioactive Phytochemicals. Recent Advances in Inflammation and Allergy Drug Discovery 2025. https://doi.org/10.2174/0127722708304650240827092452.	Bentham Science	Q3	
16	**Dr. Puneet Gupta**	Singh, P.; Singh, N.; Nagpal, D.; Gupta, P. Herbs and Their Active Constituents for Gastric Cancer and Related Problems - Preclinical and Clinical Studies. Curr Protein Pept Sci 2025, 26. https://doi.org/10.2174/0113892037353177250409095158.	Bentham Science	Q3	May 2025
17	**Dr. Puneet Gupta**	Jasmine; Singh, N.; Nagpal, D.; Puniani, S.; Gupta, P. Golden Therapeutic Approach to Combat Viral Diseases Using Gold Nanomaterials. Assay Drug Dev Technol 2025, 23 (2), 70–83. https://doi.org/10.1089/ADT.2024.071.	Mary Ann Leibert publishers	Q3	April 2025
18	**Dr. Saurabh Verma**	Bhardwaj, A., Verma, S., Agnihotri, A. et al. Protein based nanoparticles for pulmonary drug delivery: advances, challenges, and future perspectives. J Nanopart Res 27, 176 (2025). https://doi.org/10.1007/s11051-025-06372-5	Springer Nature	Q1	June 2025
19	**Dr. Shikha Baghel Chauhan**	Akram, A., Gaur, R., SIngh, I., & Chauhan, S. B. (2025). Dermocosmetic Bioactive: Safety Assessment and Regulatory Challenges. Current drug safety, 10.2174/0115748863360706250508050957.	Bentham Science	Q2	June 2025
20	**Dr. Shikha Baghel Chauhan**	Chauhan, S. B., Singh, I., Singh, M., & Sominder, A. (2025). Biotechnological Advancements in Active Pharmaceutical Ingredient Removal: Sustainable Solutions for Pharmaceutical Wastewater Treatment. Current Green Chemistry.	Bentham Sciences	Q3	April 2025
21	**Dr. Shikha Baghel Chauhan**	Jaitawat, D. P. S., Singh, I., & Chauhan, S. B. (2025). Next-Generation Phospholipid Nanocomplexes for Precision Neurotherapeutics: Harnessing Endogenous Blood-Brain Barrier Transport Mechanisms to Revolutionize the Treatment of Neurodegenerative Diseases. Recent advances in drug delivery and formulation, 10.2174/0126673878361646250623062415.	Bentham Sciences	Q3	July 2025
22	**Dr. Shikha Baghel Chauhan**	Chauhan, S. B., Gaur, R., Akram, A., & Singh, I. (2025). Artificial Intelligence Driven insights for Regulatory Intelligence in Medical Devices: Evaluating EMA, FDA and CDSCO Frameworks. Global Clinical Engineering Journal, 7(2), 11–24.		Q4	June 2025
23	**Dr. Shikha Baghel Chauhan**	Chauhan, S.B., Singh, I., Tiwari, A. et al. Optomechanical Engineering of Magneto-Responsive Polymers: Enhancing Prosthetic Functionality for Melioidosis and Chytridiomycosis Survivors. Biomedical Materials & Devices (2025)	Springer Nature Link	Q2	June 2025
24	**Dr. Smriti Sharma**	Sharma, S.; Chauhan, S.; Sharma, BK. CP-MLR/PLS-guided Quantitative Structure-activity Relationship Study on the Derivatives of Benzimidazolone as H3-Antihistaminic Agents. Current Pharmaceutical Design 2025, 31, 26, 2117 - 2128. DOI: 10.2174/0113816128330939250313060926	Bentham Sciences	Q2	April 2025
25	**Dr. Smriti Sharma**	Murugesan V, Sharma S. Pharmaceutical Science Strategies for Drug Therapeutic Advancement: Drug Discovery and Development (Part 2). Current Pharmaceutical Design, 2025, 31, 26, 2063-2064. DOI: 10.2174/0113816128411718250513102548	Bentham Sciences	Q3	May 2025
26	**Dr. Sweta Bawari**	Roopal Pedwar, Anush Tomar, Sweta Bawari. Pharmacological Management of Psoriasis: Current Landscape and Future Perspectives. Recent Advances in Inflammation & Allergy Drug Discovery, 2025. 10.2174/0127722708338282250309081129	Bentham Science	Q3	April 2025
27	**Dr. Vikesh Kumar Shukla**	Dixit S, Sharma D, Sharma N, Shukla VK. A Review of Software in Clinical Trials: FDA Regulatory Frameworks and Addressing Challenges. Rev Recent Clin Trials. 2025 May 29. doi: 10.2174/0115748871359356250523033831.	Bentham Science	Q1	May 2025
28	**Dr. Vikesh Kumar Shukla**	2- Mansi Sharma, Manan Grover, Shubham J. Suryavanshi, Navneet Sharma, Vikesh Kumar Shukla, Comparative Review of Clinical Trial	Bentham Science	Q1	May 2025

		Regulations in Different Countries: Current Scenario and Future Prospect, Reviews on Recent Clinical Trials:2025			
29	**Dr. Vikesh Kumar Shukla**	3- Bhardwaj, A., Verma, S., Agnihotri, A. et al. Protein based nanoparticles for pulmonary drug delivery: advances, challenges, and future perspectives. J Nanopart Res 27, 176 (2025). https://doi.org/10.1007/s11051-025-06372-5	Bentham Science	Q1	June 2025
30	**Dr. Viney Lather**	Amiya Das, Ajmer Singh Grewal, Pallavi Agarwal, Deepti Pandita, Viney Lather. Maternal Embryonic Leucine Zipper Kinase (MELK) as a Promising Therapeutic Target in Triple Negative Breast Cancer. Anti-Cancer Agents in Medicinal Chemistry. DOI: 10.2174/0118715206389899250522091159, 2025	Bentham Science	Q2	May 2025
31	**Dr. Viney Lather**	Juhi Mishra, Neelam Poonia, Viney Lather, Dhruv Kumar Nishad, Deepti Pandita. Synthetic and Natural Radioprotective Agents: Recent Status and their Underlying Mechanism of Action. Current Pharmaceutical Biotechnology. 26(5), 700-715, 2025.	Bentham Science	Q2	May 2025
32	**Dr. Viney Lather**	Firuj Ahmed, Hitesh K Sharma, Monalisa Mukherjee, Pallavi Agarwal, Anoop Kumar, Deepti Pandita, Viney Lather. Exploring synergistic potential of phytomolecules-antibiotics combination against Escherichia coli: An integrated approach using structure based drug design. Pharmacological Research-Natural Products. 6. 100160, 2025.	Elsevier		April 2025
33	**Dr. Viney Lather**	Shivali Rahi, Viney Lather, Arpana Rana, Jayamanti Pandit. Comprehensive Framework for the Global Regulation and Approval of AI-Integrated Medical Devices. Applied Drug Research, Clinical Trials and Regulatory Affairs. 11(1), E26673371347630, 2025.	Bentham Science		

Book Chapters

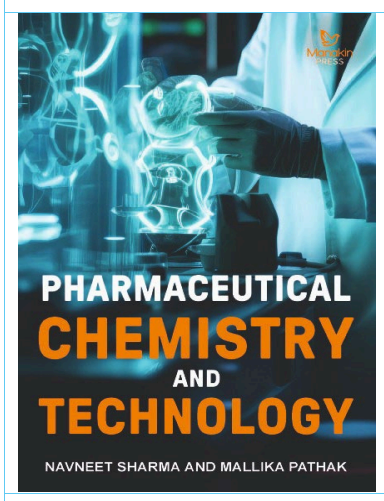
S. No.	Author Name	Book chapter details	Month and Year	Publisher	ISBN
1	Dr. Vikesh Kumar Shukla	A Comprehensive Review on the Good Manufacturing Practices Standards. In book: Understanding Pharmaceutical Standards and Regulations (pp.20-39)	June 2025	Taylor & Francis	9781040258217
2	Dr. Ramanpreet Walia	Multiple therapeutic applications of bovine colostrum and its bioactive ingredients in health and disease with special reference to the management of neurodegenerative disorders: A comprehensive review. In book: Molecular Medicine and Biomedical Research in the Era of Precision Medicine (pp.1223-1248)	June 2025	Elsevier	978-0-443-22300-6
4	Dr. Puneet Gupta	Targeting disease: Computational approaches for drug target identification. In book: Revolutionizing Drug Discovery: Cutting-Edge Computational Techniques	April 2025	Elsevier	9780443346491
5	Dr. Smriti Sharma	Cabotegravir as an HV-1 integrase strand transfer inhibitor: from workbench to clinical development, Chapter 9	May 2025	Elsevier	9780443338854
6	Dr. Shreya Kaul	Medhya Rasayanas for the Management of Alzheimer's Disease. Neuro-Nutraceuticals and Drug Discovery and Delivery in Alzheimer's Disease.	April 2025	Apple Academic Press (Taylor & Francis)	9781003570356

Book



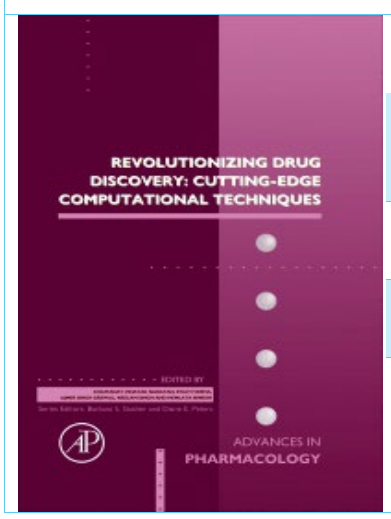
Editor	Dr. Navneet Sharma & Dr. Vikesh Kr. Shukla
Book Title	Understanding Pharmaceutical Regulations
Month and year	July 2025
Publisher	Taylor and Francis
ISBN	9781032814124

Description: This unique resource provides a comprehensive guide to the evolving regulations and standards which govern the international pharmaceutical industry. Featuring clear explanations of the latest regulations, as well as insights and strategies to maintain compliance, the book covers the key principles of best-practice for laboratory research, manufacturing, and distribution. It also offers strategies to navigate the intricacies of different regulatory environments so that pharmaceutical companies can operate internationally, avoiding the potentially costly risk of violations. Detailed and holistic, the book is an essential resource to pharmaceutical researchers and manufacturers, as well as an important resource for students and scholars in the field.



Editor	**Dr. Navneet Sharma**
Book Title	Pharmaceutical Chemistry and Technology
Month and year	July 2025
Publisher	Manakin Press
ISBN	9789392062384

Description: This book offers a concise yet comprehensive overview of drug delivery systems, integrating core principles with recent innovations. It begins with the fundamentals of targeted delivery, including drug release mechanisms and nanomaterial-based strategies. The second section examines advanced carriers like liposomes, nanoparticles, and dendrimers, focusing on their efficiency, metabolism, and therapeutic potential. The final section bridges research and clinical practice, covering drug development, regulatory processes, and commercialization. Ideal for students, researchers, and professionals, the book serves as both a foundational text and a practical guide in the field of pharmaceutical sciences



Editor	**Dr. Hemlata Nimesh**
Book Title	Revolutionizing Drug Discovery: Cutting-Edge Computational Techniques
Month and year	1st Edition, Volume 103 - May 21, 2025
Publisher	Academic Press, Elsevier
ISBN	Hardback ISBN: 9780443346491, eBook ISBN: 9780443346507

Description: Revolutionizing Drug Discovery: Cutting-Edge Computational Techniques, Volume 103 is an essential guide for professionals, researchers, and students in the pharmaceutical and biotech industries, providing an in-depth look at how computational methods transform drug development. Chapters in this new release include Innovative Computational Approaches in Drug Discovery and Design, Advanced Molecular Modeling of Proteins: Methods, Breakthroughs, and Future Prospects, Predictive Cavity and Binding Site Identification: Techniques and Applications, ADMET Tools in the Digital Era: Applications and Limitations, Essential Database Resources for Modern Drug Discovery, Deep Learning for Drug Design and Development.

Ph.D. Awarded /Pre-Ph.D. Submitted

List of Degree Awarded Ph.D. Scholars

S.N	Name of the scholar	Guide Name	Thesis Title	Status	Date of ODC
1	Ms Divya Singh	Dr. Rajeev Kharb	Design and synthesis of novel substituted Schiff's bas derivatives as anti-microbial and anti-inflammatory agents	Result Awaited	23-05-2025
2	Mr Prashant Kumar Chaturvedi	Dr. Shruti Chopra	Development of New or Improved Stability Indicating Liquid Chromatographic Methods and Impurity Profiling of Some Antibiotics and Antiviral Drugs	Result Awaited	09-05-2025
3	Mr Boyapati Isaiah	Dr. Neerupma Dhiman	Development and evaluation of modified release dosage forms using MUPS Technology for selected drugs	Result Awaited	29-05-2025
4	Ms Komal Chaudhary	Dr. Ramanpreet Walia	Method Development & Validation of Anti-Diabetic & Anti-Obesity formulations using Modern Analytical Techniques.	Result Awaited	28-05-2025
5	Mr R Chandrashekar	Dr. Tanveer Naved	Evolution of Regulatory Pathway for Novel Candidate Vaccine.	Result Awaited	12-06-2025
6	Ms Poonam Sharma	Dr. Harsha Kharkwal	Role of Mudulators of Calcium Ion Channel in Cerebral Ischemia-Reperfusion Conditioning Phenomenon during Diabetes Mellitus	Result Awaited	18-06-2025







Group Photographs of the Ph.D. Scholars with External Examiners and AIP Faculty Members on the day of ODC

List of Ph.D. Scholars Pre-Ph.D. conducted					
7	Ms Bhawna Arora	Dr. Ramanpreet Walia	Solubility and Bioactivity Enhancement of Hesperidin and Naringenin	Pre-Ph.D. Successfully Conducted	23-04-2025
8	Ms Sonali Sundram	Dr. Neerupma Dhiman	Microwave Assisted Solvent Anti-solvent Approach for the Development of Melatonin Loaded Nano-formulation to Improve Neuroprotective Activity	Pre-Ph.D. Successfully Conducted	23-04-2025
9	Mr Sanjeev Kumar	Dr. Tanveer Naved	Formulation of Modified Dosage Forms for some Poorly Water-Soluble Antihypertensive Drugs.	Pre-Ph.D. Successfully Conducted	23-04-2025

Sanctioned/Ongoing Funded Research Projects

#	Name of the Investigator	Project No.	Funding Agency	Title of the project and duration	Sanctioned Amount (in Rs.)
1.	Dr. Maryam Sarwat	3-158/2022-ccrum/Tech	CCRUM	To study the Immunomodulatory effect of Khamira-e-Gaozaban Sada (KGS) and Sugar Free KGS (sf KGS) on D-amphetamine (AMPH) Induced Mania Model of Bipolar Disorder (BD)	30,53,690
2.	Dr. Maryam Sarwat (Co-PI)		CCRUM	In-vitro evaluation of antiviral activity of Unani Drugs and their green nanoparticles against Dengue virus	24,80,000
3.	Dr. Annie Gupta	2655	CST, UP	Metabolomics based bioprospection of medicinal weed plant-*Achyranthus aspera* in search of elite chemotype in Uttar Pradesh	13,00,000
4.	Dr. Puneet Gupta	3-52/2022-CCRUM/Tech	CCRUM	Formulation Development and preclinical evaluation of novel Unani dispersible tablets for immunomodulatory activity and as adjuvant to Anticancer therapy	30,53,690
5.	Dr. Nitin Sharma	3-85/2023-CCRUM/Tech	CCRUM	Colon targeting of unani medicine via gum(polysaccharide) based oral formulation for effective treatment of irritable bowel syndrome/clinical investigation by gamma scintigraphy	22,41,000
6.	Dr. Havagiray R. Chitme	CST/D-786 Project ID 4000	CST, UP	Fractionation, Characterization and Identification of Diagnostic Biomarker from Follicular Fluid of Patients Diagnosed with Endometriosis	16,36,000

7.	Dr. Navneet Sharma	Registration no. : TPN/77817	DST, IIT Delhi	Textile Based NBC Nuclear, Biological and Chemical Decontamination Handwear, Funded Technology Development Transfer by Division,	55,90,000
8.	Dr. Navneet Sharma	Order No: 1/9/2024-9th MSG/10	MoT, IIT, Delhi	Fabrication and Evaluation of the Gamma Protective Clothing, Funded by National Technical Textile Mission,	1,00,00,000
9.	Dr. Nitin Sharma	3/85/2023-CCRUM/Tech	CCRUM	Colon targeting of Unani Medicine via gum (polysaccharide) based oral formulations for effective treatment of Irritable Bowel Syndrome: Clinical Intervention by Gamma Scintigraphy	22,41,000/-
10	Dr. Nitin Sharma	CRG/2023/006908	ANRF (SERB), Delhi	Extraction, physicochemical characterization and application of Opuntia ficusindica plant polysaccharide f Apigenin delivery through nanocarrier approach	41,38,000/-
11	Dr. Nitin Sharma (Co-PI)	CRG/2023/003432	ANRF (SERB), Delhi	"Comprehending the correlation between nanoinformatics data and mechanistic nanoformulations	3,19,000/-
12	Dr. Swati Madan	Z-18017/188/CSS/NGO/ Ashwagandha-Campaign/ UP-01/2024-25-NMPB	NMPB, AYUSH, GOI	National campaign on Ashwagandha -a Health Promoter	18,90,000/-
13	Dr. Kalpana Nagpal Chaswal	SPS25-5097232627	International Brain Research Organisation (IBRO), Delhi	“Neuro-pharmaco-behaviour studies in acute and chronic animal models”	USD 5000
14	Dr. Navneet Sharma	F No TECH-21/9/2025-CCRUM-HQ	CCRUM	Novel Unani Medicine infused Organic Oil based in-soles for diabetic foot care	27,51,760

Guest Lecture Organised/Delivered

S.N		Name	Delivered	Photograph
1		Dr. Ramanpreet Walia	Lecture delivered on technical Intricacies of IPR MB School of pharmaceutical sciences, Mohan Babu University, Tirupati on 28th April 2025	

Alumni Interaction Sessions

A Skill Development Workshop on “Understanding and Navigating the Current Status of Clinical Trials in India” was conducted to provide students with a comprehensive overview of the evolving landscape of clinical research in the country. The workshop focused on key aspects such as regulatory frameworks, ethical considerations, trial phases, recent amendments by CDSCO, and the role of digital technologies in clinical trial management. Experts from the field shared practical insights, case studies, and career opportunities, enhancing the knowledge and readiness of students and professionals to engage with real-world clinical trial processes in India. The session concluded with an interactive Q&A and feedback from participants.

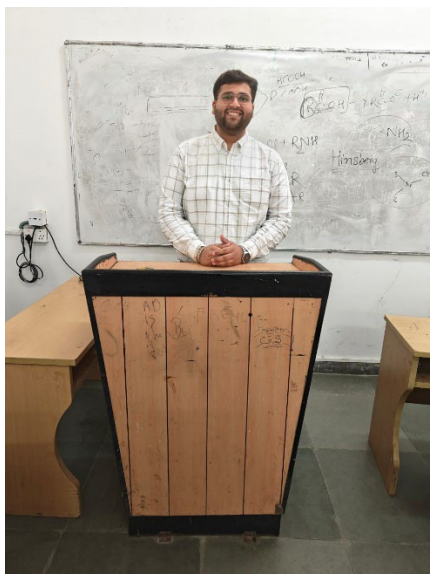
Key Highlights of the Session:

- **Regulatory Updates:** Detailed discussion on recent guidelines and amendments introduced by CDSCO and their implications on clinical trial operations.
- **Trial Process Overview:** Step-by-step explanation of the clinical trial process – from protocol development to post-marketing surveillance.
- **Ethical Considerations:** Emphasis on ethics committee approval, informed consent, and patient safety in clinical trials.
- **Digital Integration:** Exploration of emerging technologies like e-consent, remote monitoring, and digital data capture in modern clinical trials.
- **Interactive Q&A:** Participants engaged with speakers to clarify doubts and discuss practical challenges in the field.
- **Skill Enhancement:** Hands-on learning and exposure to documentation practices, regulatory submission formats, and trial monitoring tools.

Conclusion:

The session was highly interactive, motivating, and informative. It provided students with a real-world understanding of the regulatory affairs domain and inspired them to pursue excellence in their professional careers. The Skill Development Workshop served as an enriching platform for students, researchers, and professionals to gain practical knowledge and clarity on the evolving framework of clinical trials in India. It successfully bridged the gap

between theoretical understanding and industry expectations, encouraging informed participation in the domain of clinical research. The event concluded with positive feedback and a call for continued capacity-building initiatives in the healthcare and pharmaceutical sectors. The Department expressed gratitude to Mr. Kashish Garg for his time and invaluable insights, and looked forward to more such alumni engagements in the future.



Our Alumni Mr. Kashish Garg with Alumni Coorindator and Students.

Key Highlights of the Session:

1. Introduction to Regulatory Affairs in Industry: Mr. Rohan Nagpal provided a clear and concise overview of the roles and responsibilities of a Research Affairs Associate in a global pharmaceutical company. He emphasized the importance of regulatory strategy, dossier compilation, compliance management, and the evolving regulatory landscape across major regulatory agencies such as the US FDA, EMA, and CDSCO.
2. Career Pathway and Skills Development: Sharing her own journey from student to professional, he offered valuable guidance on building a successful career in regulatory affairs. He highlighted essential soft and technical skills including attention to detail, regulatory writing, global regulatory knowledge, and effective communication.
3. Challenges and Opportunities: The session covered current industry challenges such as changing regulatory guidelines, digital transformation, and the integration of AI in regulatory systems. Mr Nagpal also elaborated on emerging opportunities in the field, including roles in regulatory intelligence, pharmacovigilance, and clinical regulatory liaison.
4. Industry Expectations from Fresh Graduates: He gave practical advice on how students can align their academic learning with industry expectations. He encouraged students to participate in internships, keep updated with global regulatory updates, and enhance their proficiency in regulatory documentation tools.
5. Interactive Q&A Session: The session concluded with a lively Q&A, where students asked insightful questions about interview preparation, certifications (like RAC), trends in regulatory science, and job roles in multinational pharmaceutical companies.

Conclusion:

The session was highly interactive, motivating, and informative. It provided students with a real-world understanding of the regulatory affairs domain and inspired them to pursue excellence in their professional careers. The Department expressed gratitude to Mr. Rohan Nagpal for his time and invaluable insights and looked forward to more such alumni engagements in the future.

Our Alumni Mr. Rohan Nagpal with Dr. H.R. Chitme, Dr. Tanveer Naved, Alumni Coorindators & Students.

Patents Filed/Grant

S.No	Name of Inventors	Title	Complete/ Provisional	Date of Submission	Application No.
1	Dr. Indu Singh	Controlled Release Parenteral Pharmaceutical Composition of Antipsychotic Agent	Granted	10-05-2024	565677
2	Dr. Sangeetha Gupta	'AI-Based System for Predicting Stages of Chronic Liver Disease in Preclinical Models' "	Provisional	30-04-2025	202511041838
3	Dr. Navneet Sharma	'Chitosan-Zeolite Composite Hemostatic Beads for Rapid Hemorrhage Control in Combat and Emergency Trauma Care'	Provisional	13-06-2025	202511057008
4	Dr. Nitin Sharma	'Pregabalin-Loaded Lipid Nanocarriers for Nasal Delivery in Neuropathic Pain Management'	Provisional	27-06-2025	202511061674
5	Dr. Kalpana Nagpal	'Microbiome-Safe Anti-Acne Composition and Method for Preparation Thereof'	Provisional	11-07-2025	202511066509

Outgoing Batch of B.Pharm & M.Pharm in the Academic Session 2024-25

Group photograph of faculties and B. Pharm. Outgoing batch students, Section A

Group photograph of faculties and B. Pharm. Outgoing batch students, Section B

Group photograph of faculties and M. Pharm. (Industrial Pharmacy) Outgoing batch students

Group photograph of faculties and M. Pharm. (Pharmaceutics) Outgoing batch students

Group photograph of faculties and M. Pharm. (Pharmacology) Outgoing batch students

Group photograph of faculties and M. Pharm. (Industrial Pharmacy) Outgoing batch students

Group photograph of faculties and M. Pharm. (PRA) Outgoing batch students

Group photograph of faculties and M. Pharm. (PP&PM) Outgoing batch students

Our Future Leaders

Leading Recruiters at the Amity Institute of Pharmacy

Placements

Our students got placed in Leading companies like- Fresenius Kabi, Dabur, Phronesis Partner, Systopic, Synokem Laboratories, Orchid Pharma

Name of Company	Names of Students	Enrolment No.	Course
Alembic Pharmaceuticals	Mr Vineet Singh	A4513321002	B.Pharm
Layers	Mr Shadan Hasnain Zaidi	A4513321005	B.Pharm
Aclaris	Mr Gujjenti Shashikant	A4513321006	B.Pharm
Nava Health Care	Ms Khushi Jaiswal	A4513321011	B.Pharm
Hayatack	Ms Mansi Aggarwal	A4513321012	B.Pharm
Orchid Pharma	Ms Mouli Sarkar	A4513321013	B.Pharm
Orchid	Mr Vishal Bhardwaj	A4513321015	B.Pharm
Nava Health Care	Mr Harsh	A4513321016	B.Pharm
Orchid Parma	Ms Tejaswani Tiwari	A4513321017	B.Pharm
Fresenius Kabi	Mr Kundan Kumar	A4513321019	B.Pharm
Asia 365	Mr Rahul Saikia	A4513321020	B.Pharm
Asia 365	Mr Mohit Rajoriya	A4513321022	B.Pharm
Zyla Health Care	Ms Anam Arora	A4513321035	B.Pharm
Alembic Pharmaceuticals	Mr Gaurav Aswal	A4513321041	B.Pharm
Cipla	Ms Rachana Kumari	A4513321043	B.Pharm
Zyla	Ms Gaurvi Negi	A4513321045	B.Pharm
Phronesis Partners	Ms Pallavi Singh	A4513321050	B.Pharm
Phronesis Partners	Ms Ananya Shukla	A4513321053	B.Pharm
Aadipushp	Ms Manasvita Tyagi	A4513321056	B.Pharm
Malook Pharmaceuticals	Ms Rajlaxmi Nandi	A4513321057	B.Pharm
Poly Meducure	Ms Myeisha Anand	A4513321061	B.Pharm
Coro Health	Mr Nishant Saraswat	A4513321063	B.Pharm
Fresenisus Kabi	Mr Nitish Kumar Tiwari	A4513321071	B.Pharm
QSD	Mr Tushar Seth	A4513321073	B.Pharm
Win Health Care	Mr Syed Areeb Ali	A4513321078	B.Pharm
Orange Health	Ms Ojasvi Singh	A4513321081	B.Pharm
Orchid Pharma	Mr Sameer Jha	A4513321089	B.Pharm
cipla	Ms Shreya Chaturvedi	A4513321091	B.Pharm
GRG Health	Mr Sanyam Tyagi	A4513321099	B.Pharm
Fronesis Partners	Mr Devansh Nagpal	A4513321103	B.Pharm
365 Medical Asia	Mr Rishabh Goel	A4513321104	B.Pharm
Adipushp	Mr Rudraksh Singh	A4513321107	B.Pharm
Cipla	Ms Shibangi Rawat	A4513321110	B.Pharm
Orchid Pharma	Ms Mansi Khari	A4513321113	B.Pharm

Kusum Health Care	Ms Simran Dixit	A10651923002	M.Pharm (DRA)
Gel craft	Ms Simran Yadav	A10651923003	M.Pharm (DRA)
Datta Medi products	Mr Utkarsh Vashishtha	A10651923004	M.Pharm (DRA)
Fermish Tech.	Ms Shubhangini Chauhan	A10651923005	M.Pharm (DRA)
Medtronic	Ms Simran Kaur	A10651923006	M.Pharm (DRA)
Complaince Quest	Mr Radhakrishan Gaur	A10651923007	M.Pharm (DRA)
Datta Mediproducts	Ms Prachi Sharma	A10651923008	M.Pharm (DRA)
PharmaAce	Mr Manan Grover	A10651923010	M.Pharm (DRA)
PharmaAce	Mr Vishesh Sahu	A10651923011	M.Pharm (DRA)
Fermish	Ms Chahat Tyagi	A10651923013	M.Pharm (DRA)
Sun Pharma	Ms Sonal Sharma	A10651923014	M.Pharm (DRA)
Satori one click LLP	Mr Deepak Dhandia	A10651923015	M.Pharm (DRA)
Max Corporate Servises	Ms Mansi Sharma	A10651923009	M.Pharm (DRA)
Inizio	Mr Chirag Jain	A106171823001	M.Pharm (IP)
GRG Health	Mr Dhruv Pratap Singh Jaitawat	A106171823005	M.Pharm (IP)
Ultragneic	Ms Dolly Nirwan	A10655023002	M.Pharm (PC)
Elevetia	Ms Bhanvi	A10655023003	M.Pharm (PC)
EXL	Mr Dimpy	A10655023005	M.Pharm (PC)

Adipushp	Ms Mani Singh	A10655023006	M.Pharm (PC)
Nehal Naturals LLP	Mr Sidhant Bera	A10655023009	M.Pharm (PC)
CHCS Servises	Mr Gaurav Kumar	A10655023012	M.Pharm (PC)
Systopic	Mr Shubham Kumar	A10647023005	M.Pharm (Pharmaceutics)
PharmaAce	Ms Sristi	A10647023007	M.Pharm (Pharmaceutics)
ESS	Mr Vishal	A10647023008	M.Pharm (Pharmaceutics)
Inizio Health	Ms Gulpreet Mehra	A10647023001	M.Pharm (Pharmaceutics)
Inizio Health	Ms Pragya Singh	A10647023002	M.Pharm (Pharmaceutics)
Inizio Health	Ms Aiman Usmani	A10647023004	M.Pharm (Pharmaceutics)
Octavus Consulting	Mr Sarvesh Kumar	A10647023009	M.Pharm (Pharmaceutics)
ultragenic	Mr Rahul Sarathee K	A10647023010	M.Pharm (Pharmaceutics)
Dabur	Ms Rakshita	A10647023014	M.Pharm (Pharmaceutics)
GEn!E Lifesciences	Mr Kabil Malhotra	A10647023017	M.Pharm (Pharmaceutics)
Systopic	Mr Abhinav Kumar Tiwari	A10654923004	M.Pharm (Pharmacology)
Virohan Pvt Ltd	Ms Aqsa Nadeem	A10654923009	M.Pharm (Pharmacology)
Apothecarie	Ms Sonia Bisht	A10654923008	M.Pharm (Pharmacology)
Phronesis Partners	Ms Pooja Saxena	A10654923014	M.Pharm (Pharmacology)
parexel	Ms Prerna Bhati	A10654923011	M.Pharm (Pharmacology)
Apcer	Ms Ariba Khan	A10654923016	M.Pharm (Pharmacology)

Interviews under Process in leading companies

Sun Pharma Metronic, Innodata Ltd, Kusum Health Care, Ultragenic, Vivnovation

Event organized by placement cell

Panel discussion on' **Vision to Venture Talk for Budding Entrepreneur** was organised by E-Cell on 20th February 2025

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Internship at a Glance

Batch 2023-27

SNo.	Enrollment No	Student Name	Name of Hospital & Industry	City
1	A4513323001	Ms Shaheen Haque	Venkateswar Hospitals , Dwarka	new delhi
2	A4513323004	Ms Debanki Deb	Government District Combined Hospital, Noida	Delhi NCR
3	A4513323006	Ms Shruti	Indraprastha Apollo Hospital	New Delhi
4	A4513323007	Ms Vaishnavi Tyagi	Apollo Hospital Indraprastha	New Delhi
5	A4513323010	Ms Yasha Mirza	Svbp Hospital, Meerut	Meerut
6	A4513323011	Mr Vishal Prasad	Vmmc & Safdarjung Hospital	Delhi
7	A4513323012	Mr Sarthak Saigal	Fims Super Speciality Hospital	Sonipat
8	A4513323014	Ms Aditi Kukreti	Sun Pharma Industries.Ltd	New Delhi
9	A4513323015	Ms Kasak Saha	Emoha Elder Care	Bangalore
10	A4513323018	Mr Ashmit Manak	Govt. District Combined Hospital, Gautambuddh Nagar	Noida
11	A4513323021	Ms Sagun Rai	Sun Pharma Industries.Ltd	New Delhi
12	A4513323022	Mr Zafar Ali	Mediversal Hospital Pvt. Ltd.	Patna
13	A4513323024	Ms Anushka Sharma	Fortis Escorts Hospital , Faridabad	Faridabad
14	A4513323026	Ms Sneha Yadav	Holy Family Hospital	NEW DELHI
15	A4513323029	Mr Arpit Badola	Maa Kamakhya Multispeciality Hospital	Kotdwar
16	A4513323032	Mr Akshat Singh	Max Superspecialty Hospital,Vaishali	GHAZIABAD
17	A4513323036	Mr Arihant Jain	Venkateshwar Hospitals, Dwarka Sector-12	New Delhi
18	A4513323038	Ms Titli Dalui	Iris Multispeciality Hospital	kolkata
19	A4513323037	Mr Keshav Kaushik	Indraprastha Apollo Hospitals , Jasola	New Delhi
20	A4513323040	Ms Asmita Bhattacharyya	Ruby General Hospital	kolkata
21	A4513323041	Ms Harshita Kochhar	Employee'S State Insurance Model Hospital	Delhi
22	A4513323043	Ms Kanshi Vyas	Pil Siidcul Haridwar	Haridwar
23	A4513323044	Ms Rupal	Kailash Hospital	Noida
24	A4513323046	Mr Abhishek Sharma	Civil Hospital, Shillong	Shillong
25	A4513323047	Mr Vansh Chauhan	Gian Sagar Medical College And Hospital	RAJPURA
26	A4513323056	Ms Anshika Das	Safdarjung Hospital	new delhi
27	A4513323057	Ms Ishika Madan	Apollo Hospital Jasola	New Delhi
28	A4513323058	Mr Saif Ahmed	Sadar Hospital	Jharkhand
29	A4513323060	Mr Tanishq Nishad	Amrita Hospital	Gr. faridabad
30	A4513323063	Ms Lhingnunhoi Milhiem	District Hospital, Churachandpur	Churanchandpur
31	A4513323064	Mr Samarth Sharma	Fortis Hospital	Gurgaon
32	A4513323066	Mr Rishabh Gidiya	Apollo Hospital, Jasola	New delhi
33	A4513323069	Mr Dhruv Sharma	Bbmb Hospital	Nangal
34	A4513323071	Mr Rohan Singh	Divisional Railway Hospital South Eastern Railway Adra	ADRA
35	A4513323073	Ms Geetanjali Bhardwaj	Indraprastha Apollo Hospital	New Delhi
36	A4513323074	Mr Chirag Dubey	Sir Ganga Ram Hospital	New Delhi
37	A4513323075	Mr Md Zia Mumtaz	Fortis Hospital	Greater Noida
38	A4513323081	Mr Piyush Yadav	Fortis Hospital	Gurgaon
39	A4513323082	Mr Ravi Aditya	Rpl (India) Pharmaceuticals Pvt. Ltd.	Delhi
40	A4513323084	Mr Piyush Rathi	Dr. Hedgewar Arogya Sansthan	Delhi
41	A4513323085	Ms Archana Chamoli	Ambedkar Nagar Hospital	Delhi
42	A4513323086	Ms Surbhi Arora	Indraprastha Apollo Hospital	New Delhi
43	A4513323087	Mr Ankush	Admed Pharma	Baddi
44	A4513323089	Mr Deepanshu Chaudhary	Deepchand Bandhu Hospital, Ashok Vihar	New Delhi
45	A4513323093	Mr Sumit Chakraborty	Fortis Hospital	NOIDA
46	A4513323094	Mr Aman Faiyaz	Deep Chand Bandhu Hospital, Ashok Vihar	New Delhi
47	A4513323097	Ms Yashika Garg	Dr. Hedgewar Arogya Sansthan	Delhi
48	A4513323098	Mr Punya Malhotra	Holy Family Hospital	New Delhi
49	A4513323099	Ms Jyoti Saraswat	Sumitra Hospital	Noida
50	A4513323100	Mr Yash Garg	Deep Chand Bandhu Hospital, Ashok Vihar	New Delhi
51	A4513323103	Ms Aadya Agarwal	Guru Teg Bahadur Hospital	Delhi
52	A4513323106	Ms Dolly Bansal	Guru Teg Bahadur Hospital	Delhi
53	A4513323107	Mr Shashwat Sharma	Csir Iiim Pharmacology Divison	JAMMU
54	A4513323108	Mr Yashwardhan Singh Panwar	Indraprastha Apollo Hospital, Sarita Vihar	New Delhi

55	A4513323110	Ms Arushi	Fortis Escorts Hospital , Okhla	New delhi
57	A4513323113	Ms Shweta Kumari	Indraprastha Apollo Hospitals, Jasola	New Delhi
58	A4513323114	Mr Khushwant Aryan	Gmch,Purnia	PURNIA,BIHAR
59	A4513323117	Mr Aditya Pratap Singh	Deep Chand Bandhu Hospital, Ashok Vihar	New Delhi
60	A4513323118	Mr Alok Kumar	Indraprastha Apollo Hospital	New Delhi
61	A4513323119	Ms Naba Irfan	Indraprastha Apollo Hospital	Delhi
62	A4513323121	Ms Saniya	Fortis Hospital	NOIDA
63	A4513323122	Mr Kartikaiya Dixit	Amrita Hospital	Gr. Faridabad
64	A4513323123	Mr Aarjav Jain	Systochem Laboratories Ltd.	Gaziabad,Loni
65	A4513323079	Ms Japgun Bhatia	Kmc Hospital, Kanpur	Kanpur

Batch 2022-26

S.No.	Enrollment No.	Name	Name of Industry/ Hospital
1	A4513322002	Anas Malik	Sun Pharma
2	A4513322006	Moti Sagar	Mediforce Healthcare Pvt. Ltd
3	A4513322011	Radha Kumari	Sun Pharma
4	A4513322018	Chirag	Arbro Pharmaceuticals Ltd.
5	A4513322020	Mohit Singh	Mediforce Healthcare Pvt. Ltd
6	A4513322024	Abhradip Banerjee	Arbro Pharmaceuticals Pvt Ltd.
7	A4513322029	Aman Kumar	Arbro Pharmaceuticals Pvt. Ltd.
8	A4513322047	Manuj Choudhary	Sun Pharma Pvt. Ltd.
9	A4513322051	Muskan Saifi	Radicon Laboratories Ltd.
10	A4513322055	Sanjoli Srivastav	Dipas, Drdo
11	A4513322062	Manya Singh	Radicon Laboratories Ltd.
12	A4513322065	Brijesh	Arbro Pharmaceuticals Pvt. Ltd.
13	A4513322081	Anjishnu Singh	Arbro Pharmaceutical Pvt. Ltd
14	A4513322095	Manisha Singh	Dipas-Drdo
15	A4513322097	Akshma Chauhan	Ion Healthcare Pvt Ltd
16	A4513322102	Prashant Diwakar	Radicon Laboratories Ltd
17	A4513322108	Paravi Tripathi	Psychotropic India Limited (Pil)
18	A4513322112	Md Sakib Faiyaz	Abyss Pharma Pvt Ltd
19	A4513322009	Vishal	Radicon Laboratories Ltd
20	A4513322014	Shahid Afridi	Psychotropic India Limited (Pil)
21	A4513322026	Mahak Dahiya	Psychotropic India Limited (Pil)
22	A4513322033	Tapish Mavi	Mediforce Healthcare Pvt. Ltd.
23	A4513322041	Amrit Kumar Singh	Radicon Laboratories Ltd
24	A4513322043	Nishant	Government Hospital (Chc) - Ballh, Karnal
25	A4513322049	Vishakha	Psychotropics India Limited (Pil)
26	A4513322064	Saniya Mohib	Akums Drugs & Pharmaceuticals Ltd
27	A4513322068	Sarthak Bhatia	Indo Rama Engineers
28	A4513322070	Shikhar Aggarwal	Radicon Laboratories Ltd
29	A4513322078	Ananya Dwivedi	Inmas, Drdo
30	A4513322083	Dipa Adhikari	Panacea Biotec Ltd
31	A4513322091	Samarjeet Singh	Psychotropics India Limited (Pil)
32	A4513322110	Rudraksh Taluja	Radicon Laboratories Ltd
33	A4513322114	Samarth Chaudhary	Indo Rama Engineers
34	A4513321106	Ashutosh Dubey	Mediforce Healthcare Pvt. Ltd
35	A4513322005	Lovenya	Arbro Industry
36	A4513322025	Mohd Shariq	Arbro Pharmaceutical Pvt. Ltd.
37	A4513322039	Tanisha Sharma	Holy Family Hospital, Okhla Road
38	A4513322048	Shilpa Saloni	Arbro Pharmaceutical Pvt. Ltd
39	A4513322052	Iqra Saifi	Radicon Laboratories Ltd.
40	A4513322079	Arya Gupta	Dipas - Drdo
41	A4513322084	Niharika Pandey	Mankind Pharma
42	A4513322090	Pearl Sharma	Dd Pharmaceuticals Pvt. Ltd
43	A4513322104	Khusbu	Synokem Pharmaceutical Ltd
44	A45133220	Mohak Hans	Msu Hospital , Selangor , Malaysia
45	A4513322008	Aditya Mishra	Pyschotropics India Limited
46	A4513322012	Md Shahbaz Alam	Hedgewar Arogya Sansthan
47	A4513322023	Mohd Sameer Raza Ansari	Arbro Pharmaceutical Pvt Ltd
48	A4513322032	Yashvi Bhardwaj	Sci International Hospital
49	A4513322042	Amaan Rehman	G.B. Pant Hospital
50	A4513322046	Ridhima Sharma	Holy Family Hospital
51	A4513322054	Raj Laxmi Singh	Aiims ,New Delhi
52	A4513322067	Jahnavi Bhar	Dr. B Borooah Cancer Institute
53	A4513322111	Anshul Panchal	Anand Hospital

Students got selected for Higher Studies in other Universities

S. No.	Enrollment No.	Program	Student Name	Name Of Institute / University	Batch
1	A4513321037	MS	Ms Aashna D Rai	Liverpool Hope University, United Kingdom	2021-25
2	A4513321048	Ms	Mr Kritik Vashistha	Trinity College Dublin, The University of Dublin	2021-25
3	A4513321072	M.Sc. Drug Chemistry	Ms Bhumika Kumari	Newcastle University, United Kingdom	2021-25
4	A4513321094	M.Sc. Pharma Science	Ms Riya Sindhwal	University of Westminster, United Kingdom	2021-25
5	A4513321111	M.Sc. Biotech	Mr Mridul Gupta	Newcastle University, United Kingdom	2021-25
6	A4513321 055	M.Pharm	Mr. Dhrubajyoti Sen	Manipal of College of Pharmaceutical Sciences, Manipal	2021-25

Conferences/Faculty Development Programme/Workshops

National Workshop on "Use of Machine Learning Tools and Artificial Intelligence for Effective New Drug Discovery and Development"

Organized by: Amity Institute of Pharmacy (AIP) in association with Amity Centre for Artificial Intelligence (ACAI), Date: Friday, 27th June 2025 (Hybrid Mode), Venue: J-1 Block, Room No. 307, Amity University, Noida Campus

About the workshop

The Amity Institute of Pharmacy (AIP), in association with the Amity Centre for Artificial Intelligence (ACAI), successfully organized a National Workshop on "Use of Machine Learning Tools and Artificial Intelligence for Effective New Drug Discovery and Development." This one-day workshop aimed to provide a comprehensive understanding of how Artificial Intelligence (AI) and Machine Learning (ML) technologies are revolutionizing the pharmaceutical industry, particularly in the area of drug discovery and development.

Inaugural Session

The workshop commenced with the welcome address by Prof. (Dr.) Havagiray R. Chitme, Head of the Institute, AIP. He warmly welcomed the dignitaries, guest speakers, and participants and shared the vision of integrating cutting-edge AI technologies with pharmaceutical sciences.

Following the welcome address, Dr. M. K. Dutta, Additional Pro Vice Chancellor, Dean of Students Research (AUUP), and Director of Amity Centre earch possibilities.

The post-lunch session resumed with a talk by Dr. Rakesh Chandra Joshi, from ACAI, AUUP, Noida, titled "AI Applications in Pharmacy." He detailed real-world applications of AI in pharmaceutical formulations, diagnostics, and personalized medicine.

This was followed by a hands-on session conducted by the team from Amity Centre for Artificial Intelligence. Participants explored practical tools and workflows used in AI-assisted drug discovery and engaged in a discussion on potential research problems in the domain.

The workshop concluded with a vote of thanks by Prof. Chitme, expressing gratitude to all the speakers, organizers, and participants. The day's proceedings were gracefully anchored by Dr. Alka Lohani, who ensured the smooth conduct of the sessions with her insightful moderation and warm engagement with the speakers and audience.

Outcome

The Workshop proved to be highly impactful, offering participants a thorough understanding of how AI and machine learning are revolutionizing pharmaceutical research. The event successfully bridged the gap between theoretical concepts and practical applications through expert talks and hands-on sessions. Participants gained exposure to the techniques, and real-world case studies that demonstrated the potential of AI in accelerating drug discovery, enhancing precision, and optimizing research workflows. The interactive discussions and Q&A sessions promoted knowledge exchange and encouraged interdisciplinary collaboration. As a result, the workshop fostered interest among young researchers and academicians to explore AI-

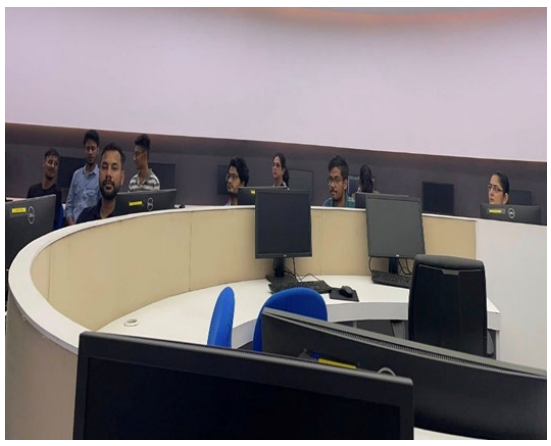
for Artificial Intelligence, delivered the Opening Remarks and an insightful talk titled "AI Introduction and Applications." His session laid the foundation for the day's discussions by highlighting the transformative role of AI in health sciences and academia.

The Keynote Address was delivered by Dr. Shivprakash Rathnam, CEO of APIQULE Pharmachem LLP, Ahmedabad, and President of the Indian Pharmacological Society. He emphasized the industrial perspective of AI in pharma and its impact on improving research outcomes and reducing time-to-market for new drugs.

Scientific Sessions

The scientific sessions of the workshop featured engaging talks by renowned experts who shared their insights on the integration of AI and ML in drug discovery. Dr. R. Ravishankar from CSIR-Central Drug Research Institute, Lucknow, presented on "AI Approaches in Rational Drug Discovery," where he highlighted the application of artificial intelligence in modeling biological systems, optimizing drug-target interactions, and accelerating the identification of lead compounds. This was followed by a session by Dr. Feroz Khan, Principal Scientist at CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow, who delivered a talk on "Machine Learning Methods Used in Early Drug Discovery." Dr. Khan explained various machine learning techniques used for data mining, virtual screening, and pattern recognition to support early-phase pharmaceutical research. The sessions provided participants with valuable theoretical insights complemented by practical relevance, fostering a deeper understanding of how computational tools are reshaping conventional drug discovery methods. A dedicated Q&A segment allowed attendees to interact directly with the experts, discuss challenges, and explore res

driven research and laid the foundation for future collaborations and innovations in pharmaceutical sciences.



5-Days FDP on “Innovation & Intellectual Property Rights in Pharmaceutical Technology: Commercialization & Technology Transfer” from 26th May to 30th May 2025

Organized by: Amity Institute of Pharmacy in In Association with Amity Academic Staff College, Amity University, Noida held on May 26–30, 2026.

Amity Institute of Pharmacy organised a 5-day FDP on “Innovation & Intellectual Property Rights in Pharmaceutical Technology: Commercialization and Technology Transfer.” From 26th May to 30th May 2025 under the leadership of Dr Havagiray R. Chitme, Deputy Director AIP & FDP Co-Chair, The FDP began with Saraswati Vandana and a lamp lighting ceremony. Programme Director FDP Dr Ramanpreet Walia then provided an overview of the FDP to online and offline participants along with Dr Tanveer Naved, Co-Chair and Dr. Swati Madan and Dr. Viney Lather as Programme Coordinators. Over the five days, several distinguished speakers, renowned in the patent and regulatory field, presented on topics covering Regulatory guidelines for Patent Filing, Biotechnological Advances for robust Patent Strategies in Pharmaceutical Innovations, Role of Trademark for Technology Commercialization & Technology Transfer, Technical Challenges of IPR, "Patent: Filing Procedure & What Cannot Be Patented in India etc. Not only the lectures, the beauty of this FDP was Interactive workshops on drafting patent claims, filing procedures, and handling prosecution hands on rom our IP experts. Daily assessments and feedback forms were used to evaluate participant understanding and gather feedback.

The Chief Guest for Inaugural Event Sh. Rohit Rathore, Deputy Controller of Patents and Designs, Patent Office, Delhi graced the occasion and shared some regulatory guidelines of IPR. our Valedictory event Chief guest, Dr. Vishwajanani, Scientist H & Head CSIR- TKDL, New Delhi who is expert in TKDL spoke on a very Important topic of handling challenges for patenting in Herbals.

We had galaxy of speakers from Industry , Government organisations and education having expertise in IPR field , some of the distinguished speakers were, Ms Shahida Umar Assistant Controller of Patents & Designs, IPO , New Delhi, Mr Ramakant Vaishnav, Assistant Controller of Patents & Designs, IPO , New Delhi, Dr. Rahul Taneja Scientist, Directorate of Science and Technology, Govt of Haryana, Punchkula, Mr. Vikrant Rana, Managing Partner, SS Rana & CO, New Delhi, Dr. Dinesh Kumar Sarwal -Senior Director & Global Head-IPR Jubilant Radio Pharma, New Delhi, Dr. Neeti Wilson, Partner Anand and Anand, Noida, Ms. Jyoti Chauhan, Vice President Drafting and Prosecution, Ennoble IP, Ms. Isha Sharma, Founder Trayambak and Viadroit (Aor), Ms. Reema Sahni ,Head, Innovation-Technology Transfer O ice (i-TTO), New Delhi, Dr. Manu Sharma ,Associate Professor, School of Pharmacy, National Forensic Sciences University, Delhi Campus, New Delhi., Mr. Vivek Srivastava Head Patents United & United IP law firm, New Delhi. Mr. Gaurav Ojha, Solutions Consultant, Clarivate Analytics Intellectual Property (IP) Strategy, Solution Consultant, Noida, Prof. (Dr.) Amrish Chandra Dean School of Pharmacy at Sharda University, Greater Noida, Dr. Shweta Sharma Principal Patent attorney, Khurana and Khurana, New Delhi, Ms. Mansi Chaudhary Founder and Managing Partner the Frontiers Legal.

we had 5 days of extensive IPR sessions to bring insights of IPR and its different types. Thanks all the participants for sharing valuable feedbacks on this FDP.

Faculty Development Programme on "Medical Device, Pharmacovigilance & Clinical Trial Regulations for Pharma & Biotech Industries"

Dates: 02 – 06 June 2025

Amity Institute of Pharmacy and Amity Institute of Biotechnology, in collaboration with Tenet Health Edutech Pvt. Ltd. (Cliniminds™) and Amity Academic Staff College, hosted a one-week Faculty Development Programme (FDP) aimed at enhancing academic and industry readiness in the areas of medical devices, pharmacovigilance, and clinical trial regulations. The event brought together over 70 faculty members and researchers from institutions across India, fostering a rich environment for learning and collaboration.

Day 1: The programme commenced on June 2nd with a traditional lamp-lighting ceremony and addresses by eminent dignitaries, including Dr. Aseem Sahu (Deputy Drugs Controller, CDSCO) and Prof. (Dr.) W. Selvamurthy (President, ASTIF). Key sessions on Day 1 included Dr. Sahu's detailed overview of India's evolving regulatory framework and a thought-provoking talk by Dr. Vivek Ahuja on the role of AI in pharmacovigilance. Industry leaders from IQVIA, Fresenius Medical Care, and Cliniminds also shared insights on global trends in drug development and life sciences.

Day 2: Featured focused sessions on clinical trial regulations and medical device compliance. Dr. Devesh Kumar and Dr. Piyush Pandey emphasized ethics, GCP guidelines, and documentation practices essential for ethical research. Dr. Ashish Indani offered a hands-on understanding of medical device regulations through interactive activities and real-life examples. The day was marked by vibrant discussions and reinforced through a networking tea session that encouraged cross-institutional interaction.

Day 3: Participants delved into the practical aspects of pharmacovigilance with Mr. Joydeep Dutta of Cliniminds, who presented the discipline as a critical, proactive system for patient safety. Ms. Chetna Bogra discussed Clinical Data Management Software and its transformative impact on clinical research efficiency and compliance. A highlight of the day was an industrial

visit to the Indian Pharmacopoeia Commission (IPC), deepening the participants' understanding of national pharmacovigilance initiatives.

Day 4: Dedicated to research funding strategies. Dr. Arti (BIRAC) and Dr. Neetu Vijay (ICMR) elaborated on funding mechanisms and support structures such as Bioincubators, SBIRI, and the Pan-India Virus Research Lab Network. A hands-on workshop by Dr. Bhudev C. Das and Dr. Nitin Chitranshi provided practical tools for writing fundable research proposals. The day concluded with a felicitation ceremony celebrating the speakers' contributions and encouraging participants to pursue impactful research.

Day 5: Included an industrial visit to NuLife Medical Device Manufacturing Unit, where participants witnessed real-time demonstrations of medical device production and quality assurance processes. Back on campus, Dr. Tanvir Kaur (ICMR) highlighted national health research initiatives and innovation platforms like MedTech Mitra. The day concluded with certificate distribution, participant feedback, and a heartfelt vote of thanks.

Throughout the week, the FDP balanced academic rigor with hands-on experience and inter-institutional networking, successfully empowering faculty with knowledge, skills, and inspiration to drive regulatory excellence and research innovation in the pharmaceutical and biotech sectors.

2. Skill Gap Identification

- Constructive feedback from recruiters and guest speakers highlighted key areas for improvement.
- Insights enabled the creation of personalized learning plans and greater focus on industry-relevant practical skills for upcoming semesters.

3. Networking Opportunities

- Students established valuable connections with industry experts, alumni, and potential employers.
- Access to mentorship programs and career guidance sessions to support professional growth.

4. Career Clarity & Motivation

- Enhanced understanding of various specialization tracks within pharmacy and their career prospects.
- Notable boost in student motivation, confidence, and proactive approach towards skill enhancement.

5. For Faculty

Industry–Academia Collaboration

- Initiation of discussions and MoUs with hospitals, pharmaceutical companies, and research labs for future internships, training programs, and joint initiatives.
- Opportunities for guest lectures, industry-led workshops, and collaborative projects.

Curriculum Enrichment

- Recruiter feedback guided the alignment of academic content with current industry needs.
- Plans to integrate more practical modules, case studies, and skill-based assessments into the curriculum.

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Internship Fair 2025

Outcomes of the Internship Fair for Pharmacy Students

1. Increased Internship Placements

- Direct interaction with leading hospitals, pharmaceutical industries, research organizations, and community pharmacies resulted in confirmed internship slots for several students.
- Exposure to reputed institutions offering diverse hands-on experiences in manufacturing, quality control, clinical pharmacy, research, and regulatory affairs.

Faculty Birthday Celebrations at AIP 2025

AIP Faculties celebrating the Birthday party

Memorandum of Agreement

International Dual Degree PG Programmes with Temple University, Philadelphia

On 19th May 2025, a Memorandum of Agreement was signed with Temple University for a 1+1 dual degree in the following programmes of pharmacy:

1. MSc (Drug Delivery) at AUUP/MS (Drug Delivery) in TU
2. MSc (Drug Discovery) at AUUP/MS (Drug Discovery) in TU
3. MSc Pharmacokinetics at AUUP/MS (Pharmacokinetics) in TU
4. MSc Regulatory Affairs and Quality Assurance in Pharmacy at AUUP/MS (RAQA in Pharmacy) in TU.

Students Achievements 2025

Global Mobility Programme on Clinical Pharmacy and Healthcare Systems – MSU, Malaysia

May 27 – June 23, 2025

Two dedicated students of B.Pharm IV Semester, Ms. Surbhi Arora and Ms. Vaishnavi Tyagi, undertook a month-long Global Mobility Programme on Clinical Pharmacy and Healthcare Systems at Management and Science University (MSU), Malaysia, from May 27 to June 23, 2025. This immersive experience focused on hands-on exposure to clinical case management, international healthcare systems, and pharmacy practice in both hospital and community settings of Malaysia.

The programme commenced on May 28 with an orientation at MSU's Faculty of Health and Life Sciences, setting the foundation for the academic journey ahead. The students participated in interactive briefings, ice-breaking activities, and introductory sessions outlining the objectives of the mobility programme.

On May 29, comprehensive lectures were delivered on Malaysia's healthcare infrastructure and the clinical importance of vitamins and minerals—presented with a patient-centric approach. From May 30 to June 6, the students were actively posted at MSU Medical Centre (MSUMC), where they observed and participated in clinical case discussions, medication reconciliation processes, and patient counselling. Under the supervision of hospital faculty they were exposed to real-time decision-making in differential diagnosis and therapeutic planning. A focused lecture on Traditional Chinese Medicine (TCM) was delivered to expand their understanding.

On June 9, the participants visited Alpro Pharmacy, a leading community pharmacy chain in Malaysia, where they witnessed modern dispensing systems, inventory workflows, and patient adherence strategies. This was followed by the SMARTMED clinical workshop on June 10–11 at MSU's Centre for Pharmaceutical Practice. Through simulation-based case studies.

Continuing the theme of applied pharmacy, the students undertook visits to community clinics and pharmacies on June 12–13. These visits highlighted the pharmacist's role in public health and primary care through real-world observation.

The final week combined scientific, research-oriented, and cultural immersion. On June 17, a visit to Muzium Negara offered insights into Malaysia's medical history and traditional practices. On June 18, they attended University Selangor (USTM) for a workshop on zebrafish toxicity models, learning their relevance in preclinical drug safety testing. On June 19–20, the participants visited the Shah Alam Botanical Garden for herbal plant identification, team-building activities with MSU's Pharmacy Club, and discussions on the application of phytotherapy in modern pharmacy.

Throughout the Global Mobility Programme, the students demonstrated commendable initiative, professionalism, and adaptability. The clinical case management emphasis allowed them to bridge theoretical knowledge with evidence-based patient care in a multicultural context.


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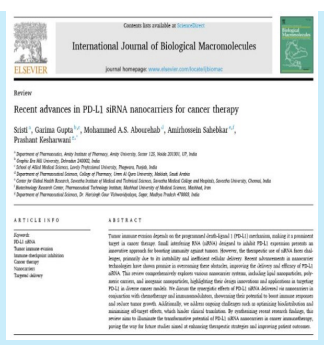
Professional Achievements by the AIP students

Photo	Name	Academic Year	Achievement	Certificate
	**Shashwat Sharma**	2nd Yr B Pharm	Four-month Certificate Course, "Master Certificate Course in Pharmacotherapy Module 3: Neurological and Psychological Disorders. Certification received on May 5, 2025 Principles of Clinical Pharmacology 2024-2025- National Institutes of Health (NIH) 	
	**Anushka Sharma**	2nd Yr B Pharm	Donated blood for the first time at Fortis Escorts Hospital's Voluntary Blood Donation Camp—an empowering step toward saving lives and supporting healthcare.	
	**Sristi**	2nd Yr M Pharm	Published a review article titled *"Recent Advances in PD-L1 siRNA Nanocarriers for Cancer Therapy"* in the *International Journal of Biological Macromolecules* (IF: 7.7).	
	**Sagun Rai**	2nd Yr B Pharm	Completed an online course on AI in Healthcare, gaining insights into medical imaging, clinical decision support, and AI-driven patient care enhancement.	

Articles by the students

Why Some People Scar More Than Others: The Role of Genetics, Hormones and Skin Type

Abhishek Sharma, 5th semester, B Pharm

Have you ever noticed that some people can go through surgery or a deep wound and come out with barely a mark, while others are left with raised, prominent scars? The difference isn't just about how well someone takes care of their wound; it runs deeper. Genetics, hormones, skin type, and even age all contribute to how our skin heals and scars.

In this blog, we'll dive into the fascinating biology of scar formation, explain why some people scar more easily than others, and share what science says about preventing and managing scars. Whether you're curious about your skin or writing for a skincare brand, this is the guide you've been looking for.

The Basics: What Is a Scar and Why Does It Form?

Scarring is a natural part of the healing process. When your skin is injured, whether by a cut, burn, acne, or surgery, your body rushes to repair the damage by producing collagen, a protein that gives structure to the skin. But unlike the smooth, basket-weave collagen found in uninjured skin, scar tissue

is made of a denser, more disorganized collagen structure. That's what makes it look and feel different.

The process of wound healing occurs in four main stages:

1. Hemostasis – Blood clotting begins to stop bleeding.
2. Inflammation – Immune cells clear out damaged tissue and fight infection.
3. Proliferation – New tissue and blood vessels form.
4. Remodeling – Collagen is deposited and rearranged over weeks or months. Scars form if the collagen deposition during remodeling is excessive or poorly regulated.

Genetics: The Blueprint of Your Skin's Response

Genetics plays a major role in how your body heals and scars. Some people are genetically predisposed to produce more collagen than others, particularly Type I and III collagen, which are crucial in scar formation. Studies have identified specific genes associated with excessive scarring, including DPP4, NEDD4, and PLAU, which influence fibroblast activity, inflammation, and collagen regulation.

People with certain genetic backgrounds, particularly individuals of African, Asian, or Hispanic descent, are more likely to develop keloid scars, which are thick, raised, and extend beyond the original wound. These genetic tendencies are often inherited and linked to family history.

Additionally, if a close relative scars easily or has had hypertrophic or keloid scars, chances are your genes may respond similarly.

Hormones: The Hidden Modulators

Hormones are another powerful factor in scar formation, though often overlooked. Estrogen, progesterone, and cortisol can all influence how wounds heal.

- Estrogen has been shown to aid wound healing by promoting collagen production and angiogenesis (formation of new blood vessels). However, excessive estrogen may contribute to abnormal collagen deposition, especially during periods of hormonal fluctuation like puberty, pregnancy, and menopause.
- Cortisol, the stress hormone, can delay wound healing and promote chronic inflammation, which increases the risk of scarring.

This hormonal impact partly explains why some people notice worse acne scars during adolescence or why surgical scars may heal differently during pregnancy.

Skin Type and Tone: A Crucial Link

Your skin type, particularly your Fitzpatrick skin type, which classifies skin by its response to UV light, can affect your likelihood of scarring. Darker skin types (Fitzpatrick types IV to VI) are more prone to keloid and hypertrophic scars.

Here's why:

- Melanin-rich skin tends to produce more collagen in response to injury.
- Inflammatory responses in darker skin can be prolonged or more intense.
- Certain areas, like the chest, shoulders, jawline, and upper back, are more tension-prone, making scarring worse in these regions.

But that doesn't mean lighter skin types are completely spared they're more likely to develop atrophic scars, such as acne pits, due to reduced collagen production post-inflammation.

Age: Young vs Mature Skin Healing

1. Children and young adults generally heal faster but are more likely to develop overactive scarring such as hypertrophic or keloid scars because of high collagen turnover and robust immune activity.
2. In contrast, older individuals have slower wound healing, but their scars tend to be less raised and pigmented because their skin produces less collagen and their inflammatory response is weaker.
3. Fascinatingly, fetuses in the womb (especially before 24 weeks) can heal without scarring at all. This "scar- free healing" is due to a unique wound environment that minimizes inflammation and maximizes balanced collagen production a topic that's now at the forefront of regenerative medicine research.

Types of Scars and What They Tell Us

There are several types of scars, and knowing the difference is key to understanding why some people scar more noticeably.

1. Hypertrophic Scars: Raised, red scars that stay within the boundary of the original wound. Often develop in areas of tension and improve over time.
2. Keloid Scars: Grow beyond the original wound's boundaries. Thick, rubbery, and may itch or hurt. Keloids often require clinical treatment.
3. Atrophic Scars: Sunken or pitted scars, such as acne scars or those from chickenpox. These result from collagen loss during healing.
4. Contracture Scars: Usually from burns. These scars tighten the skin and can affect underlying muscles and tendons.

Each type reflects different biological responses whether it's excessive collagen, poor wound closure, or deep tissue damage.

Can You Prevent Scars? The Evidence-Based Approach

While you can't change your genes, you can influence how your wounds heal. Here's what science suggests:

Immediate Wound Care

- Clean the wound properly to prevent infection.
- Use antibiotic ointments if advised.
- Avoid picking at scabs, as this interrupts the healing cycle.

Tension Minimization

- Use steri-strips or silicone sheets to support the wound and minimize pulling, especially on joints and high-movement areas.

Sun Protection

- UV exposure can darken scars permanently.
- Apply sunscreen or cover healing skin for several months after injury.

Silicone Gel or Sheeting

- Widely recommended for scar management.
- Studies show silicone improves hydration, reduces collagen buildup, and flattens scars over time.

Professional Treatments

- Steroid injections for keloids and hypertrophic scars.
- Microneedling and laser therapy for atrophic and acne scars.
- Pressure garments and cryotherapy in severe cases.

It's best to start scar treatments early, often within weeks of wound closure, and always under the supervision of a dermatologist.

The Psychological Side of Scarring

Scars, especially those on the face or visible areas, can affect self-esteem and emotional well- being. While some embrace their scars as a part of their story, others may struggle with body image or social anxiety.

Research shows that early counselling, support groups, or cosmetic treatments can help those who find scarring emotionally difficult. It's essential to acknowledge both the physical and psychological impact of skin trauma.

The Future of Scar Prevention: What's on the Horizon?

Scientists are exploring scarless healing models based on fetal tissue, aiming to replicate that environment in adults. Promising areas of research include:

- Gene therapies that modulate fibroblast activity.
- TGF-β inhibitors to reduce collagen overproduction.
- Injectable stem-cell based therapies for tissue regeneration.
- 3D skin printing and tissue scaffolding for reconstructive healing.

These advances could revolutionize how we treat surgical and traumatic scars in the near future.

Final Thoughts

Scarring is a complex, deeply individual process shaped by a combination of genetics, hormones, skin type, and age. While you can't control all these factors, understanding them can help you better care for your skin, set realistic expectations, and seek effective treatment options if needed.

If you're someone who scars easily, know that you're not alone and modern dermatology offers plenty of solutions to reduce, fade, and even prevent certain scars with the right approach.

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Novartis: A FDA Approved Drug Company

By: Muskan Sahu, B.Pharm, III-Semester

Novartis is a Swiss pharmaceuticals giant well known globally, based in Basel, Switzerland, Founded by Alexander Clavel, Johann Rudolf in 1996, obtaining frequent approvals from the FDA for medicines in various areas of therapy. Novartis gets FIRST EVER FDA approval for a CAR-T cell medicine, Kymriah (TM) (CTL019), for pediatric and young adult patients with B-cell ALL that has relapsed or is refractory at least twice. Novartis' new drugs approved by the FDA recently include Entresto in heart failure, Kymriah in some cancers, and Lutathera in neuroendocrine tumors. Their innovative drug portfolio positions them as a regular candidate for FDA approvals, attesting to their position as a leading FDA-approved drug firm.

Let's take a walk through some of their signature drugs, their magic in pharmacology, the intricate process through clinical trials, the heavy investments behind it all, and, critically, why their work matters.

The Cast of Novartis Drugs: Proven Stars in Therapy

Novartis has brought several drugs to the market that have transformed treatment landscapes, from heart disease to cancer and rare conditions. Here are a few notable names:

Entresto (Sacubitril/Valsartan):

First-in-Class Angiotensin Receptor Neprilysin Inhibitor FDA Approved for Patients with Heart Failure.

- Entresto is an oral combination prescription heart medication that contains two blood pressure- lowering medications: sacubitril and valsartan. Entresto is used to treat adults with long-lasting (chronic) heart failure to help reduce the risk of death and hospitalization and to treat certain children aged 1 year and older who have symptomatic heart failure.
- Heart failure is a life-threatening condition that occurs when the heart cannot pump enough blood and oxygen to meet the body's needs. Approximately 50% of patients with heart failure die within 5 years of diagnosis.
- On July 7, 2015, the US Food and Drug Administration approved sacubitril and valsartan (Entresto; Novartis) to decrease CV death and hospitalization in patients with chronic heart failure (NYHA Class II-IV) and reduced ejection fraction. Oral sacubitril and valsartan combination is the first angiotensin receptor neprilysin inhibitor approved by the FDA for this use.

Pharmacological aspects

- Entresto contains sacubitril and valsartan, which each have a different mechanism of action. Sacubitril works by blocking neprilysin, an enzyme that breaks down certain peptides in the body. This increases levels of beneficial peptides in the body which relax blood vessels and promote sodium and water excretion into the urine, reducing blood pressure.

Clinical trials

- The FDA approval of sacubitril plus valsartan was based on results from the PARADIGM- HF clinical trial involving 8442 patients with symptomatic chronic heart failure (NYHA Class II-IV) and systolic dysfunction.
- The primary objective of the PARADIGM-HF trial was to determine whether treatment with sacubitril plus valsartan was superior to enalapril, a renin-angiotensin system inhibitor, in reducing the risk for the combined end point of CV death or hospitalization for heart failure. The median follow-up duration was 27 months, and patients received treatment for up to 4.3 years. Based on a time-to-event analysis, sacubitril plus valsartan was superior to enalapril in reducing the risk for the combined end point of CV death or hospitalization in patients with heart failure; the treatment effect reflected a reduction in CV death and heart failure hospitalization. Overall, sacubitril plus valsartan reduced the risk for death from CV causes by 20%, reduced the risk for hospitalization for heart failure by 21%, and reduced heart failure–related symptoms and physical limitations compared with enalapril.

Why its important?

- Think of heart failure as a mountain that millions of patients are battling to climb, burdened with shortness of breath, swelling, and the risk of imminent hospitalization or even death. For decades, physicians have used medicines known as ACE inhibitors (such as enalapril), which benefited some but mortality and repeated hospital visits tenaciously remained
- Enter Entresto: a novel class of drug that introduces two pharmacologic keys—sacubitril (a neprilysin inhibitor) and valsartan (an angiotensin receptor blocker). This combination doesn't merely block one bad signal, It strengthens the body's good defenses (natriuretic peptides, which enhance salt excretion and blood vessel relaxation) while dampening several bad ones (which lead to fluid retention, high pressure, and detrimental heart remodeling).

Doctor's statement

- Entresto, which combines sacubitril and valsartan, is a first-in-class angiotensin receptor-neprilysin inhibitor (ARNI) and has emerged as a cornerstone therapy for heart failure with reduced ejection fraction (HFrEF)
- It is FDA-approved and endorsed by international guidelines based on robust clinical evidence demonstrating improved survival and significant reduction in hospitalizations for heart failure compared with traditional therapies such as ACE inhibitors alone.

Reference

- www.drugs.com
- https://www.novartis.com
- en.wikipedia.org
- www.entresto.com

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The Biology of Delayed Healing in Diabetes: Mechanisms and Management Strategies

By: Harshita Kocchar, B.Pharm., V-Semester

Introduction

Diabetes mellitus disrupts the body's natural wound-healing process, often leading to persistent, non-healing wounds especially diabetic foot ulcers (DFUs) that severely impact quality of life and healthcare costs. With roughly 19–34% of diabetics developing DFUs during their lifetime [14], it's vital to understand the biology of delayed healing in diabetes and explore effective management strategies. This article uncovers key pathophysiological mechanisms and emerging treatments rooted in basic science and clinical research.

Phases of Normal Wound Healing vs. Diabetic Impairment

Wound healing is a highly coordinated biological process that involves four overlapping phases: hemostasis, inflammation, proliferation, and remodeling. Each phase is critical, and any disruption—like that caused by diabetes—can delay or completely derail healing. Let's break down each phase and explore how it's impaired in diabetes:

1. HEMOSTASIS PHASE

What normally happens: Right after injury, blood vessels constrict and platelets aggregate to form a fibrin clot. This stops bleeding and forms the temporary matrix for cell migration.

What happens in diabetes: Platelet function is often impaired, and clot formation may be delayed or unstable [1]. In addition, hyperglycemia can alter the fibrin structure, making the clot more resistant to degradation and delaying transition to the next phase [2].

2. INFLAMMATORY PHASE

What normally happens: Within hours, immune cells like neutrophils and macrophages arrive at the wound site to clear pathogens, debris, and damaged tissue. This phase sets the stage for repair.

What happens in diabetes: In diabetic wounds, inflammation is prolonged and dysregulated. Neutrophils produce excessive reactive oxygen species (ROS) and form neutrophil extracellular traps (NETs), which damage surrounding tissues [3]. Macrophages fail to switch from the inflammatory M1 to the healing M2 phenotype, sustaining a pro-inflammatory environment [4].

3. PROLIFERATION PHASE

What normally happens: New tissue starts to form. Fibroblasts deposit collagen, endothelial cells promote angiogenesis, and keratinocytes migrate to cover the wound.

What happens in diabetes: This phase is significantly compromised. Angiogenesis is impaired due to reduced VEGF expression and endothelial dysfunction [5]. Fibroblasts exhibit reduced proliferation and altered collagen production [6]. Keratinocyte migration and re-epithelialization are delayed, often due to disrupted signaling and cytoskeletal abnormalities [7].

4. REMODELING (MATURATION) PHASE

What normally happens: Over weeks to months, the wound matures. Collagen is reorganized (type III replaced by type I), unnecessary vessels are removed, and tensile strength improves.

What happens in diabetes: Collagen remodeling is inefficient, there's excessive type III collagen and insufficient cross-linking [8]. As a result, the scar remains weak and the wound site is prone to re-injury. Matrix metalloproteinases (MMPs) remain overexpressed, degrading new tissue instead of stabilizing it [9].

2. Key Pathophysiological Mechanisms

a) Chronic Hyperglycemia & Oxidative Stress

Persistent high glucose levels promote the formation of advanced glycation end-products (AGEs), reduce antioxidant enzymes like glutathione peroxidase and superoxide dismutase, and elevate reactive oxygen species (ROS) that damage cells, microvascular endothelium, and nerves, hindering healing [3,17,18].

High ROS also prolongs inflammation and impairs later repair stages [3,19].

b) Impaired Angiogenesis & Endothelial Dysfunction

Healing wounds require new blood vessel growth (angiogenesis) mediated by VEGF and other growth factors. In diabetes, endothelial cells are dysfunctional, VEGF signaling is compromised, and capillary formation is insufficient, leading to chronic ischemia and delayed healing [5,10,25].

c) Neuropathy & Microvascular Compromise

Peripheral neuropathy (sensory, motor, autonomic) leads to reduced nerve density, poor microcirculation, skin dryness, pressure injury, and diminished sensation, increasing DFU risk and delaying detection and healing [3,24].

d) Chronic Inflammation & Immune Dysfunction

Diabetes alters immune cell behavior: neutrophils form excessive NETs, macrophages remain in a pro- inflammatory M1 state, and cytokine balance is disrupted, maintaining a damaging environment and inhibiting progression to repair [13].

e) Extracellular Matrix (ECM) & Keratinocyte Dysfunction

Hyperglycemia disrupts ECM components and fibroblast activity, impairing collagen deposition. Keratinocyte migration and differentiation are also affected, as seen by reduced laminin-5 and keratin proteins, hindering re-epithelialization [2].

f) Metabolic Aberrations: Insulin Resistance, Lipid & Amino Acid Imbalance

Abnormal metabolism in diabetes affects energy supply, growth factor signaling, and cell function. Insulin resistance impairs fibroblast proliferation and IGF signaling; lipid peroxidation leads to ferroptosis; and arginine deficiency limits nitric oxide (NO), vital for angiogenesis and vasodilation [6,15].

3. Clinical Impact: Diabetic Foot Ulcers

DFUs illustrate the culmination of these pathologies. They develop in 19–34% of diabetic individuals and have high rates of complications and mortality. 60% heal in ~6 months, but 5–24% lead to amputation within 6–18 months [14]. The triad of hyperglycemia, neuropathy, and vascular insufficiency lies at the heart of DFU pathogenesis [14].

4. Management Strategies

A. CONVENTIONAL APPROACHES

1. Glycemic Control: Maintaining optimal blood glucose levels is foundational, it slows AGE accumulation, oxidative stress, and immune impairment [12,15].
2. Off-loading & Pressure Relief: Total Contact Casting (TCC) redistributes pressure away from the ulcer, recognized as the standard for DFUs [23].
3. Debridement & Infection Control: Regular removal of necrotic tissue and targeted antimicrobial therapy reduce bacterial load and support granulation [1,14].

4. Moist Wound Healing & Dressings: Hydrogel dressings provide moisture balance, oxygen diffusion, and infection resistance suitable for chronic wounds [20].
5. Negative-Pressure Wound Therapy (NPWT): Vacuum-assisted closure enhances blood flow, reduces edema, modulates inflammation, and stimulates growth factors, though evidence is mixed [12,21,24].
6. Revascularization: Correcting macrovascular ischemia with angioplasty or bypass improves perfusion and healing potential [1].
7. Hyperbaric Oxygen Therapy (HBOT): HBOT may reduce short-term risk of amputation, though benefits past six weeks are unconfirmed [24].

B. ADVANCED & EMERGING THERAPIES

1. Topical Growth Factors & Bioengineered Skin: VEGF, PDGF, and fibroblast growth factors enhance angiogenesis and repair; extracellular matrix proteins and skin substitutes support cellular growth [1,2,14].
2. Stem Cells & Gene Therapy: Mesenchymal stem cells and gene delivery of VEGF or neuropeptides show promise in preclinical models [2].
3. Repurposed Drugs: DPP-4 inhibitors, metformin, statins, and phenytoin show potential to accelerate healing, though more trials are required.
4. Hydrogels & Nanotechnology: Advanced hydrogels deliver drugs or respond to redox status; nanodiamond-silk membranes offer temperature sensing and antimicrobial activity [22,28].
5. Nitric Oxide Dressings & Iron Chelators: NO-generating dressings and deferoxamine promote vasodilation and angiogenesis by modulating iron and oxidative pathways [14].
6. Macrophage Modulation: Creams that shift macrophage populations from M1 to M2 improve inflammation resolution and microenvironment [14].
7. Maggot Debridement & Biologics: Medical-grade larvae effectively remove dead tissue and reduce bacterial burden [14].
8. Nutrition & Herbal Supplements: Sufficient protein, vitamins, and plant extracts with antioxidants show supportive benefits in healing [7].
9. Personalized Medicine & Monitoring Technologies: Biomarker-driven therapies and non- invasive tools like ultrasound/deep learning are emerging for customized treatment and progress tracking [16,29].

Summary & Future Directions

Diabetes impairs healing through hyperglycemia, oxidative stress, vascular and nerve damage, chronic inflammation, ECM dysfunction, and metabolic imbalance. Standard treatments are glycemic control, debridement, dressings, off-loading, and remain vital, but advanced modalities (growth factors, NPWT, stem cells, hydrogels, personalized interventions) show strong promise.

Future research must focus on:

- Robust clinical trials (advanced dressings, repurposed drugs, biomarker-led therapies)
- Personalized care using genetic/proteomic profiling
- Scaling up new diagnostics (e.g., thermal sensing, AI-powered imaging)

A combined, science-driven, patient-centered approach offers the best hope to turn chronic diabetic wounds into healing success stories.

References

1. Spampinato SF et al. Treatment of impaired wound healing in diabetes: repurposed drugs. Pharmaceuticals. 2020.
2. Davis FM et al. Dysfunctional wound healing in DFUs. Curr Diab Rep. 2018;18(1):2.
3. Delavary BM et al. Pathogenesis and treatment of impaired wound healing in diabetes. Int J Low Extrem Wounds. 2014;13(3).
4. Blakytny R, Jude EB. Altered molecular mechanisms of diabetic foot ulcers. Int J Low Extrem Wounds. 2009;8(2):95-104.
5. Johnson KE, Wilgus TA. VEGF and angiogenesis in cutaneous wound repair. Adv Wound Care. 2014.
6. Zhang et al. Metabolic aberrations in diabetic wound healing. Cell Death Discov. 2025.
7. Galgotias Univ review: Diabetic wound healing factors & natural products. 2023.
8. Kang Huang et al. Angiogenesis during diabetic wound repair. Burns & Trauma. 2025.
9. Lim YC et al. Proinsulin C-peptide and angiogenesis. J Invest Dermatol. 2015;135(1): 269-78.
10. Khamaisi M et al. NPWT in diabetic foot ulcers. Diabetes Metab Res Rev. 2017;33(7).
11. Johnson et al. Diabetic microvascular dysfunction & wounds. PMC9319250. 2022.
12. Swoboda L, Held J. Impaired wound healing in diabetes. J Wound Care. 2022;31(10):882-5.
13. Stachura A et al. Wound healing impairment in db/db mouse model. Int J Mol Sci. 2022;23(15):8621.
14. Spandidos Publ. Developments in management of DFUs. 2025.
15. Bentham Science. Diabetic wound healing mechanisms & treatments. 2025.
16. Eurekaselect. Understanding diabetic wounds: mechanisms & multimodal therapy. 2024.
17. PMC8539411. Diabetic keratinocytes & oxidative damage. 2021.
18. Delavary BM et al. The problem of wound healing in diabetes. PMC9319250.
19. PMC8539411. Role of ROS in wound repair.
20. Wong SL et al. NETosis in diabetic wounds. JMDH bibliometrics. 2024.
21. Dovepress JMDH. NPWT clinical trial. 2023.
22. ArXiv Yang J. Hydrogels in diabetic wound treatment. 2024.
23. Wikipedia Total Contact Casting.
24. Wikipedia Diabetic Foot Ulcer.
25. Wikipedia Vascularisation & VEGF.
26. ArXiv Gao Z. Redox-responsive hydrogel. 2021.
27. PMC7243111. Impaired healing & DPP-4/metformin/statins. 2020.
28. ArXiv Khalid A. Nanodiamond-silk membranes for wound healing. 2020.
29. ArXiv Schlereth M. AI/ultrasound wound monitoring. 2022.

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The Role of Nanocrystalline Silver and Collagen in Treating Incontinence-Associated Dermatitis (IAD)

By: Pearl Sharma, B.Pharm, VII-Semester

Incontinence-associated dermatitis (IAD) is a skin condition caused by prolonged exposure to moisture from urine or stool. It is common in elderly, bedridden, or immobile incontinent individuals. The skin becomes red, sore, and damaged, often leading to pain, discomfort, and, in severe cases, infection or skin breakdown [1]. In recent years, two advanced components — nanocrystalline silver and collagen have shown promising results in the treatment and healing of IAD. This article highlights how nanocrystalline silver and collagen complement each other in promoting skin repair and improving outcomes for individuals with IAD.

II. Understanding Incontinence-Associated Dermatitis (IAD)

Incontinence-Associated Dermatitis (IAD) is a type of skin damage that happens when the skin stays in contact with urine or stool for a long time. This usually affects people who have urinary or faecal incontinence, meaning they are unable to control when they pass urine or stool.

When skin is exposed to moisture for long periods, it starts to break down. This happens because urine and stool change the skin's pH, making it more alkaline. In this condition, the natural barrier of the skin becomes weak. Bacteria and enzymes from the waste material can then irritate the skin and cause inflammation. As a result, the affected area usually around the buttocks, groin, or inner thighs becomes red, sore, and painful. In mild cases, there may just be redness and itching. But in more severe cases, the skin can peel, erode, or even develop open wounds. It can also get infected by bacteria or fungi if not treated properly.

The people most at risk of developing IAD are elderly individuals, patients who are bedridden or use diapers, people with long-term health problems or reduced immunity, critically ill patients in hospitals or care homes If IAD is not managed early, it can lead to serious complications like secondary infections or even pressure ulcers. These are deep wounds that take a long time to heal and can lead to more suffering. Basic prevention of IAD includes keeping the skin clean and dry, using barrier creams, and changing soiled clothes or diapers regularly. But when the skin is already damaged, medical treatments such as advanced dressings with healing agents like nanocrystalline silver and collagen are often used to promote recovery and prevent infection.

III. The Role of Nanocrystalline Silver in IAD Treatment

Nanocrystalline silver (NCS) is a special form of silver made up of extremely tiny particles less than 100 nm). These particles gradually release silver ions, which are the active form of silver [2]. These ions kill bacteria, fungi, and even some viruses by damaging their cell walls, DNA, and internal processes [3]. Unlike antibiotics, silver does not lead to resistance easily, making it very effective for wounds that are hard to heal or at risk of infection [4]. In IAD, the skin is often inflamed and may have bacterial growth due to constant moisture. NCS helps by:

a) Killing harmful microbes on the skin
b) Reducing inflammation and redness
c) Maintaining a clean wound environment for healing
d) Controlling odour and excess moisture (exudate)

When applied through dressings or creams, NCS helps speed up healing and protects the skin from further damage [5].

IV. The Role of Collagen in IAD Treatment

Collagen is a natural protein found in our skin. It gives the skin its strength and helps it repair itself when injured. In wound care, collagen dressings act like a supportive framework, allowing new skin cells to grow and helping wounds close faster [6].

In IAD, the skin barrier is broken. Collagen helps by:

a) Providing a scaffold for new cells to attach and grow
b) Attracting important healing cells like fibroblasts
c) Maintaining moisture in the wound, which is essential for healing
d) Reducing enzymes that break down healthy tissue in damaged skin [7]

Modern collagen dressings are often made from bovine (cow), porcine (pig), or even synthetic sources. These are highly purified and safe for use on damaged skin [8].

V. The Synergistic Role of NCS and Collagen in IAD Healing

Using NCS and collagen together provides a powerful approach to treating IAD. Each plays a different role, one fights infection and the other supports skin healing.

Their combined benefits include:

a) NCS kills bacteria and reduces inflammation on the damaged skin surface [5].
b) Collagen gives structure and promotes faster regeneration of new skin cells [6].
c) They also help reduce dressing changes, improving patient comfort and convenience [9].

Several clinical studies support this approach. One study showed that dressings combining collagen and silver resulted in 45% faster healing in patients with skin breakdown compared to standard creams [10]. Another lab study found increased growth of skin-repairing cells and less bacterial presence when both were used together [11]. This dual-action therapy is especially helpful for IAD patients who are at high risk of infection or who have recurring skin damage.

VI. Application in Clinical Practice

In a healthcare or homecare setting, silver-collagen dressings are now being used more often for IAD, especially when barrier creams alone are not enough. These dressings are:

a) Easy to apply
b) Comfortable for patients
c) Effective in reducing healing time
d) Helpful in preventing further skin breakdown [12]

They are particularly useful in elderly patients with fragile skin, incontinence, and limited mobility, all risk factors for IAD [1]. Healthcare providers must still ensure basic hygiene, skin cleansing, and repositioning of patients regularly. But when skin breakdown starts to occur, silver-collagen dressings can make a real difference.

VII. Conclusion

Incontinence-Associated Dermatitis (IAD) is painful, difficult to manage, and puts patients at risk of infection. However, with advanced wound care technologies like nanocrystalline silver and collagen, treatment has become more effective, faster, and safer.

a) Nanocrystalline silver controls infection and reduces inflammation.
b) Collagen supports new tissue growth and helps close the wound.
c) Together, they offer a synergistic healing approach that is both practical and powerful. With

growing use, they're becoming a reliable option for treating IAD more effectively.

VIII. Bibliography

1. Gray M, Giuliano KK. Incontinence-Associated Dermatitis, Characteristics and Relationship to Pressure Injury: A Multisite Epidemiologic Analysis. J Wound Ostomy Continence Nurs. 2018;45(1):63–7.
2. Jones SA, Bowler PG, Walker M, Parsons D. Controlling wound bioburden with a novel silver- containing Hydrofiber® dressing. Wound Repair Regen. 2018;26(2):198–204.
3. Lansdown AB. Silver in health care: antimicrobial effects and safety in use. Curr Probl Dermatol. 2020;58:17–34.
4. White RJ, Cutting KF, Kingsley A. Topical antimicrobials in the control of wound bioburden. Ostomy Wound Manage. 2021;67(7):22–34.
5. Atiyeh BS, Costagliola M, Hayek SN, Dibo SA. Effect of silver on burn wound infection control and healing: Review of the literature. Burns. 2019;45(5):895–905.
6. Caley MP, Martins VL, O'Toole EA. Metalloproteinases and wound healing. Adv Wound Care. 2018;7(9):405–17.
7. Schultz GS, Wysocki A. Interactions between extracellular matrix and growth factors in wound healing. Wound Repair Regen. 2020;28(5):378–86.
8. Domaszewska-Szostek A, Zieliński T, et al. Medical collagen as a biomaterial for wound healing: A review. Biomed Eng Online. 2023;22(1):23.
9. Dissemond J, Assadian O, Gerber V. Innovative wound dressings with antimicrobial and regenerative properties in IAD: A practical review. Skin Pharmacol Physiol. 2020;33(4):192– 201.

10. Dai T, Liu X, et al. Combined use of nanocrystalline silver and collagen enhances wound healing in patients with chronic wounds: A randomized controlled trial. Burns. 2022;48(4):920–8.
11. Li S, Guo Y, et al. Synergistic effect of collagen and silver nanoparticles on fibroblast proliferation and bacterial inhibition. Int J Nanomedicine. 2021;16:3273–84.
12. White RJ, Cutting KF. Wound dressings with combined collagen and silver: Evaluating clinical performance. Wounds Int. 2018;9(1):28–34.

Plastic Degradation (Pet Plastic)

By: Sharda Sangam, B.Pharm., III-Semester

Toxicological Impact of Pet: A Growing Environmental Threat

Among non-biodegradable substances, plastic has posed the major threat to nature since its discovery. Polyethylene terephthalate, commonly known as “PET,” is a widely used plastic material in the food and textile industry. PET leaks out into the surrounding environment in the form of macro and microplastics. Further consumption leads to several health hazards like inflammation, hormonal imbalance, and damage to the liver and kidneys. Prolonged exposure can increase the risk of cancer and infertility. Toxicological animal studies have revealed an increase in developmental issues, altered heart rate, cytotoxicity, and oxidative stress when exposed to plastics (PET). In recent investigations, traces of acetaldehyde and benzene have been found in the packaging of PET-containing containers for beverages, highlighting concerns in the healthcare industry.

DEGRADATION TECHNIQUE: GENETIC ENGINEERING IN E. COLI

In order to enhance the efficiency of PET recycling procedures, scientists are now engineering bacteria to degrade PET. It consists of genetically modified microbes with special enzymes that can digest or break down plastic. PET plastic can be degraded using genetically engineered bacteria such as Escherichia coli. E. coli can help in PET plastic degradation by genetic engineering to produce enzymes like PETase and MHETase, which are borrowed from other organisms.

Figure 1 Plastic waste

MECHANISM AND PRODUCT: role in sustainability

PETase is originally obtained from the Ideonella sakaiensis bacterium. When PET plastic is exposed to the enzyme PETase, it is broken down into mostly MHET (mono-(2-hydroxyethyl) terephthalic acid. MHET is further broken down by MHETase to produce terephthalic acid (TPA) and ethylene glycol. This innovative idea not only reduces environmental pollution but also produces essential resources like biofuels or essential pharmaceuticals, while increasing job opportunities at the local level; however, it’s important to consider the biosafety and ethical aspects of this technology.

CONCLUSION:

It is a significant step toward sustainable environmental solutions and waste management. Altogether, tackling large- scale challenges demands both innovative thinking and scientific responsibility.

Reference:

Banks, A. M., Abdulmutalib, U., ... Jiménez, J. I. (2024). Degradation of PET plastic with engineered environmental bacteria. bioRxiv. https://doi.org/10.1101/2024.09.24.614569

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Interview - Legacy in Leadership: A Heart- to-Heart with Dr. Aniel Gera

By: Pulkit Agrawal, B.Pharm, III-Semester

In a world of fleeting attention spans and quarterly targets, Mr. Aniel Gera stands tall as a symbol of what long-term, value-driven leadership looks like. With a career spanning of 36 years at Franco- Indian Pharmaceuticals and a record of 36/36 target achievements, Dr. Gera is not just a pharma professional — he's a phenomenon. From building Dexorange into a household name to inspiring generations of pharma professionals. He's done it all with humility. conviction. and an unshakable sense of purpose.

Now that we've been introduced to our esteemed guest. Let's dive deeper and hear directly from Mr. Aniel Gera. Get ready for an inspiring conversation

Q1. Beyond your corporate role, who is Aniel Gera at heart?

Mr. Aniel Gera: If you really want to know me, don't look at my designations — look at my values. I'm a Shravan Kumar. For me, family comes before everything. I've always believed that true success isn't in the salary slip, but in the smile of your parents. Even today, I care for my 90-year-old mother with complete devotion. Yes, I've built a legacy in pharma. But at home, I'm just a son who believes that seva is the highest dharma.

Q2. What was the toughest moment in your life — and how did you bounce back?

Mr. Aniel Gera: Leaving my parents at 19 to begin my career was emotionally crushing. I was deeply attached to them, and the thought of being away tore me apart. But I knew I had to convert pain into purpose. I poured myself into

my work — and carried them in my heart every step of the way. That inner emotional drive helped me stay grounded, focused, and deeply human, even as the world around me demanded results.

Q3. If your life were a book, what would Chapter 1 be titled?

Mr. Aniel Gera: ”From Splendour to Harley: Growth in Gears”…. Success is a journey — and it comes in gears. You start with a Splendour. Then a Pulsar. Then a Royal EnRield. And one day, you ride a Harley. But you don't jump gears overnight. Every phase has its lesson. If you rush, you crash. If you learn, you rise. So set small, sman goals. Plan with clarity. Execute with intent. That's how you grow — sustainably and with style.

Q4. When people doubt you or try to pull you down, what's your mindset?

Mr. Aniel Gera: Simple — I let my results speak. If someone says I can't do it, I do it twice. And then I take a picture. Criticism used to sting. But now, I wear it like Armor. In my early Dexorange days, we faced all kinds of resistance. But we didn't complain — we converted pressure into perfo rmance. If your intent is clean and your work is strong, the world has to take notice.

Q5. What kept Dexorange relevant for generations?

Mr. Aniel Gera: Three things: Trust, Value, and Ethics. Reaching the chemist was never easy. Convincing them to stock our product required belief. We had to Right for every inch of shelf space. But we never cut corners. While others shifted to plastic, we stuck to glass — even at a loss — because we knew plastic could cause chemical leaching. Legacy is not built on cost-cutting. It's built on conscience.

Q6. Your message to AIP students

Mr. Aniel Gera: Please — do not underestimate the role of a medical representative. It's not a fallback job. It's the front door to real leadership in pharma. You need product knowledge, business smarts, and most importantly — a strong personality. I started there. And today, I live in a Dexorange House worth crores. That journey was built on grit, not shortcuts. To all students reading this: Respect every role.

Stay curious about the industry