



BIRLA INSTITUTE OF TECHNOLOGY, MESRA

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Department of
PHARMACEUTICAL SCIENCES AND TECHNOLOGY

**PLACEMENT
BROCHURE
2021 - 22**



Programmes Offered :

Undergraduate Programme

- B.Pharm (4 year)

Post-Graduate Programmes

- M.Pharm (2 year) with specialization in :-

Pharmaceutics

Pharmaceutical Chemistry

Pharmacology

Pharmacognosy

Pharmaceutical Quality Assurance

- M.Pharm programme under AICTE Q.I.P. (offered to academia sponsored candidates)

Doctoral Programmes

- Ph.D in Pharmaceutical Sciences and allied research applications.

The Department of Pharmaceutical Sciences and Technology, established in 1972, boasts of its 49 years of golden association in building professionals for the industry and academia. The department is composed of a robust scientific community comprising of qualified and competent faculties, undergraduate & postgraduate students and research fellows.

Major highlights of the Department :-

- The B. Pharm and M. Pharm courses are recognized by both Pharmacy Council of India (PCI) and AICTE.
- Ranked 16th by National Institutional Ranking Framework (NIRF) 2020, Ministry of HRD, GOI in category of Pharmacy.
- B. Pharm Programme is accredited by NBA for Five Years from 2017-2022.
- Recognized amongst the 10 centres in the country for AICTE- Quality Improvement Program (QIP) in Pharmacy, since 2007.
- One of the Nodal Centre for the award of prestigious AICTE- National Doctoral Fellowship.
- Average no. of publications in Science Citation Index (SCI) Journals per year : 50
- Average Teaching Experience of the faculty is 18 Years.

Infrastructure FACILITIES



Independent building (35630 sq. ft.); 17 Laboratories (20673 sq. ft.)



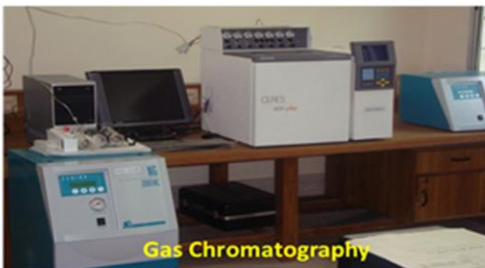
Dedicated library and reading space



Medicinal Garden (200+ plant varieties) : 10 acres



Animal house (CPCSEA approved) : 4000 sq. ft.



Other Sophisticated Instruments available :

- Microwave Organic Synthesis system
- Milli Q Water Purification Unit (Millipore)
- Non Invasive Blood Pressure System
- Table Top anaesthesia machine
- Randal Selito Instrument
- Electro von frey Instrument
- Agilent Preparative HPLC
- Buchi Rotary Evaporator
- Rectangular Maze
- Stanford Precision Melting Point Apparatus
- FlexX Molecular Modelling software
- Scigress Explorer 7.7 Ultra
- Graph Pad Prism
- Camag HPTLC
- ADME Works 3.0
- Operon Lyophilizer
- Statistica
- Plethysmometer

- Department has been recognized for its significant research outputs.
- 30 Research Projects of total grant value over 6 Crores has been awarded to the department and faculties by funding agencies like UGC, AICTE, DST-SERB, DBT, DRDO, CSIR, ICAR, ICMR, BMBF(Germany), UGC-UKIERI etc. during 2011-2021.
- Department frequently organizes Quality Improvement Programs, Workshops, Seminars and Conferences sponsored by various agencies.

RESEARCH AREAS

Pharmaceutics

- New Drug Delivery Systems
- BA/BE Studies
- Nanotechnology Based Formulation Development
- Exploration of Natural molecules as Pharmaceutical Adjuvant

Pharmacognosy

- Validation of traditional systems of medicine
- Validated methodologies for development of new herbal formulations.
- Development of Drug molecules from natural sources and their enhancement by biotechnological approaches.
- Exploring natural resources for novel drug delivery systems.

Pharmaceutical Quality Assurance

- Analytical Method Development and Validation
- Bioanalytical Method Development and Validation
- Standardization of traditional drugs and polyherbal formulations
- Pharmaceutical Validation

Pharmaceutical Chemistry

- In silico design, synthesis and evaluation of novel candidate compounds with special reference to heterocyclic moieties and small peptides in the field of antimicrobial, antiprotozoal, antiviral, antiHIV, anticancer, analgesic, antihistaminic, anticonvulsant, cardiovascular, antidiabetic and other activities.
- Molecular modeling, docking, QSAR and solution phase ADME studies using CADD based software like Sybyl 7.1, Glide, Flex X and Scigress Explorer.
- Natural products-chemistry/pharmacology/structure standardization/ using spectroscopic methods (UV-VIS/IR/NMR/MS etc.)
- Studies on synthetic nutraceuticals

Pharmacology

- General pharmacological screening, in vitro and in vivo toxicological studies of new bioactive molecules from synthetic and natural sources.
- Neuropharmacological studies of bioactive molecules with special reference to cognitive functions.
- Studies of bioactive molecules on experimentally induced diabetes, and its implications in animal models.
- Biochemical and Molecular Pharmacological studies of bioactive molecules.
- Antioxidant and DNA protective properties of bioflavonoids

Sl. No.	Project Title	Funding Agency	Sanctioned Amt. (₹) (Lakhs)
1	Aptamer-based Rapid Diagnostic Kit for Detection of Corona Virus Infection (CoVapt)	DST-SERB	15.74
2	Phenyloxazoline Synthetase Inhibitors as Antitubercular Agents (POSIAA)	DST-SERB	53.73
3	Development of multi-functional nano-HAP bone substitute for effective bone regeneration in critical defects.	DST-Nanomission	51.15
4	Design and Synthesis of Substrate Based Peptide Inhibitors of DENV Protease for the treatment of dengue viral infection.	DST-SERB	45.6
5	Phyto-chemical characterization of polyphenols in Ocimum tenuiflorum and investigation on its protective potentials against oxidative stress and DNA damage.	DST-SERB	34.232
6	To modulate the aqueous solubility of poorly water-soluble pharmaceuticals by crystal engineering technique and understand that mechanistic approach of solubilisation.	AICTE-RPS	24.12
7	Design & development of inhibitors of DENV methyl transferase for the treatment of dengue viral infection.	AICTE-RPS	17.38
8	Prophylactic Transdermal Patch Against Neurotoxin Poisoning Biological Warfare Situations	BIRAC-SRISTI (PMU) (Society for Research)	7.5

IPA-SF JHARKHAND BRANCH

Indian Pharmaceutical Association - Student Forum (IPA-SF) is the student division of the IPA, founded in 2008 under the mentorship of IPA-Education Division. IPA-SF Jharkhand Branch aims at fostering escalation of pharmacist's portrayal through various offline as well as online events conducted, to promote dynamism and team spirit.

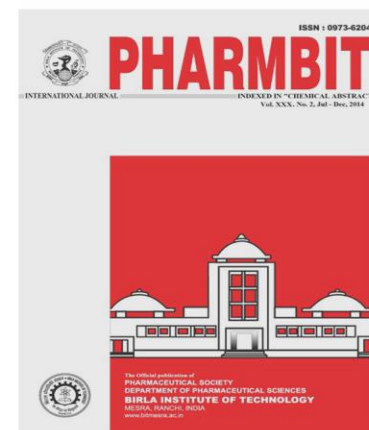
Some of the prominent activities organized are :-

- Pharma cup (cricket, Volleyball, badminton)
- Video making competition
- Extempore competition
- Poster presentation
- Public speaking
- Quiz



PHARMACEUTICAL SOCIETY

- Pharmaceutical Society is an association of students & faculty members which organizes various cultural programs.
- It publishes **PHARMBIT** (ISSN: 0973-6204) which is an open access peer-reviewed biannual scientific official journal.
- PHARMBIT is abstracted in **Chemical Abstract** (CODEN: PHARJ4), USA; **Natural Science Database**, ProQuest, USA; **Index Copernicus**, Poland; **Google Scholar**, CiteFactor, USA making our publications International.



- Mr. Prashanta Kumar Deb, received the "Junior Grant of Groupe Polyphenol" to present his research during XXX International Conference on Polyphenols-2021, organized by the University of Turku, Finland (13-15 July, 2021).
- A total of 18 teams of undergraduate students from 2nd and 3rd year participated in the global Project iDEA challenge organized by AstraZeneca, 2021.
- Mr. Satyajit Mohanty, PhD scholar received first prize in 4th National Conference at IPT Salipur, Cuttack, Odisha in 2020.
- Ms. Mousumi Shyam, PhD scholar, received Newton Bhabha PhD Placement Award, 2020.
- Harish Kumar Singh and Srijita Sen of M. Pharm. first year bagged 1st Prize in 12th National Seminar at IMT Puri, 2019.
- Mrs. Suparna Roy Sarkar, PhD Scholar won the "Best Oral Presentation Award" in 51st Annual Conference of Indian Pharmacological Society-2019, organized by NIN, Hyderabad (Dec 5-7, 2019)
- Ms. Mousumi Shyam received Sakura Science Exchange Fellowship and Japan-Asia Youth Exchange Fellowship in 2019 Funded by Japan Science and Technology
- Mr. Piyush Makkar of M.Pharm second year bagged first prize in 6th convention of Society of Ethnopharmacology India, 2019.
- Mrs. Suparna Roy Sarkar, PhD scholar won the "Best Scientific Paper Award" in 6th International Congress of Society for Ethnopharmacology, organized at Manipal College of Pharmaceutical Sciences, 2019.
- Mr. Prashanta Kumar Deb, PhD scholar and ICMR-SRF received Travel Award from Polyphenol Society of Japan, 2019.
- A group of 19 undergraduate students from 2nd and 3rd year participated in "SPIRIT 2019", the annual techno pharmaceutical fest of IIT BHU. They bagged 12 prizes in a variety of events.
- Mr. Gourav Rakshit and Ms. Priyanka Chandra of M.Pharm second year received second prize in IPA Convention, 2018.
- Mr. Satyajit Mohanty, PhD scholar was adjudged as the Third Runner-up in the UDPS Pharmacon 2018.
- Mr. Sabya Sachi Das, PhD scholar won prize for Best Poster Presentation at the 7th International Conference on Translation Cancer Research Chennai, 2018.
- Mr. Subham Banerjee, PhD Scholar nominated for BIRAC-SRISTI Gandhian Young Technological Innovation (GYTI) Award, 2017.
- Mr. Ashok C Verma, PhD scholar won the "Best Scientific Paper Award" in International Conference on "Recent Trends in Science and Technology", organised at S.S.S.K.R. Innani Mahavidyalaya, Karanja (Lad.), Maharashtra.

Name	Designation	Company/Organization
Ms. Ritu Sahay	Director of Drug Control Organisation	Govt. of Jharkhand
Sri. Hemant Kumar Sinha	Drug Controller	Govt. of Bihar
Mr. Naveen Sharma	President	Cliantha Research Ltd., Ahmedabad
Dr. Maya Prakash Singh	Vice President	Becton, Dickinson and Company
Dr. Tousif Monif	Vice President, Global Ops	Lambda Therapeutics
Dr. Shivaji Singh	Co-Founder, President	Zieta Technologies, Atlanta, USA
Dr. Suneel K. Gupta	Chief Development Officer	Protagonist Therapeutics
Dr. V. Venkateswarlu	Managing Director	Neuheit Pharma Technologies Pvt. Ltd.
Mr. Raweesh Chaudhary	Director - Med Affairs	AstraZeneca, USA
Mr. Abhay Kr. Singh	Income Tax Commissioner	Govt. of India
Mr. Anjani Kumar	President, Global Ops	Wockhardt Ltd.
Dr. B. M. Singh	General Manager	Asian Development Bank
Dr. Susmita Chanda	Vice President	Aligos Therapeutics USA
Dr. Krishnan Tirunellai	Senior Scientific Advisor Health	Canada, Ottawa
Dr. Ajay Kumar Handa	Executive Vice President and Head OSD	Dr. Reddy's Hyderabad
Dr. T. R. Choudhary	Head-Marketing	Johnson & Johnson, Eastern Region
Dr. S. S. Mahli	Additional Commissioner	Central Excise, Bolepur, West Bengal
Dr. P. H. Rao	Professor Admn. Staff	College of India, Hyderabad



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Thank You

for your Time & Attention !

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