

Powering Education...Towering Knowledge





Divisions:



IPA Students' Forum (IPA-SF)

IPA Students' Forum (IPA-SF) is a national forum for pharmacy students under the IPA. It aims to bring all pharmacy students under one umbrella so that their energies can be synergized to make a difference. The forum enables them to become better future pharmacists while abiding with the highest ethical and professional standards. This catalyzes their overall development and facilitates development of their academic, leadership and professional skills for their benefit and in turn the profession and thus health of INDIA. Activities of IPA-Student Forum are guided by esteemed personalities of Pharmaceutical professionals from India and abroad.

The Indian Pharmaceutical Association (IPA)

The Indian Pharmaceutical Association (IPA) is the premier professional association of pharmacists in India founded on 23rd December 1939, with a member base of over 10,000, spread across the length & breadth of the nation. IPA operates in India through 21 state branches & more than 46 local branches. The members represent various facets of pharmaceutical profession viz. industry, regulatory, community pharmacy, hospital pharmacy & education. IPA is also actively associated in managing several academic programmes. As member of the Drug Technical Advisory Board, India, IPA is actively involved in advising the government on matters of professional importance. IPA is affiliated to international pharma associations like FIP, FAPA, CPA, AAPS, AAiPS, IPSF & WHO, for carrying out various collaborative professional activities which include organizing training programmes for professionals from industry, academics, regulatory & practice, making representations to the authorities on matters of professional interest & working towards constantly upgrading the standards of professional services offered by the pharmacists.

Mission

Mission: The Indian Pharmaceutical Association (IPA) is the national professional body of pharmacists engaged in various facets of the profession of pharmacy. The IPA is committed to promote the highest professional and ethical standards of pharmacy, focus the image of pharmacists as competent healthcare professionals, sensitize the community, government and others on vital professional issues and support pharmaceutical education and sciences in all aspects

The Indian Journal of Pharmaceutical Sciences

The Indian Journal of Pharmaceutical Sciences is the bimonthly scientific publication of the IPA. The journal publishes original research work in the areas of Pharmaceutical Sciences (Pharmaceutical Technology, Pharmaceutics, Biopharmaceutics, Pharmacokinetics, Pharmaceutical/ Medicinal Chemistry, Computational Chemistry and Molecular Drug Design, Pharmacognosy and Phytochemistry, Pharmacology, Pharmaceutical and bioanalysis, Pharmacy Practice, Clinical and Hospital Pharmacy, Cell Biology, Genomics and Proteomics, Pharmacogenomics, Bioinformatics and Biotechnology of Pharmaceutical Interest). IJPS is indexed by various abstracting agencies e.g. Chemical Abstracts, DOAJ, International Pharmaceuticals Abstracts, Journal Citation Reports, PubMed, Pubmed Central, Science Citation Index Expanded, Scimago Journal Ranking, SCOLAR, SCOPUS, SIIC databases & is available online (www.ijpsonline.com) Original research work is published in IJPS either as a Full Research Paper or as a Short Communication. Review Articles on current topics in Pharmaceutical Sciences are also considered for publication by the Journal.

Pharma Times

Pharma Times is the news magazine of the IPA. It is a scientific journal and in addition to featuring general articles of professional interest, it also publishes proceedings of the Central Executive Council of IPA, the Annual Report and Accounts of the Association, reports on branch activities, proceedings of IPA Convention, notifications of IPA and other information such as articles, advertisements, announcements etc. Pharma Times is indexed by the search engines - Scopus & Embase of the premier scientific publication house Elsevier.





The formal announcement of the commissioning of the 50kw Solar Power-on-grid System at Bombay College of Pharmacy (BCP) campus was done at the programme on 28th May 2015, BCP's Foundation Day and concluding ceremony of the Centennial Birth Anniversary of Padmabhushan Late Shri Amrut Vithaldas Mody (Founder Chairman of the Governing Body of the BCP).

Looking at the success ratio of the 50kv solar power-on-grid system at BCP additional 90kv system has been installed on 4th Feb 2017 totaling to 140kv, followed by installation of Net Metering for the optimal utilization of resources

Sun shines on Kalina college; ₹1.6L saved

WATT AN IDEA 453 solar panels, installed across a 13,500 sq ft terrace, generate 15,399 units of electricity every month



Badri Chatterjee

badrichatterjee@hindustantimes.com

MUMBAI: One of the largest rooftop solar power generation systems in Mumbai helps Bombay Pharmacy College in Kalina to power 70% of its electricity requirements from the sun.

The college saves Rs1.6 lakh every month in electricity bills by running the 140 kilowatt-power (kWp) system that has 453 solar panels installed across a 13,500 sq ft terrace area. The system generates an average 15,399 units of electricity per month and runs lights, fans, air-conditioners, and lifts across 13 laboratories, seven classrooms, the college administration office area and the canteen. For a comparison, a two-bedroom flat in Mumbai uses 300-350 units of electricity per month.

Solar energy, apart from being renewable and free, does not cause pollution unlike power plants that burn coal, gas and oil. Solar energy can be used in remote areas where electricity

SOAKING UP THE SUN

WHAT IS SOLAR ENERGY?

Solar energy is a free source of renewable energy

WHY IS IT IMPORTANT?

Generation of solar power does not cause carbon emissions that come from burning coal, gas and oil for generation of electricity

Solar energy can be used in remote areas where electricity from the grid cannot be accessed

Gadgets like calculators, street lights and other low power-consuming devices can be powered by solar power

The potential to harness solar energy as a natural resource is infinite

■ The 453 solar panels installed across a 13,500 sq ft terrace area.

HOW TO HARVEST RAINWATER

Rainwater can be harvested in several ways:

One way is to assist rainwater to seep into the ground and recharge groundwater levels. In this process, wells will have water for a longer period in the dry season

Rain water falling on building terraces can be diverted and stored for use in the dry season



■ Students and staff stand near the medicinal garden located near the entry of the college.

KEEP IN MIND

Rain can be acidic, because it mixes with atmospheric gases, so it needs to be processed before it is used for drinking or cooking. Unprocessed rain water can be used for non-potable purpose like flushing toilets and watering gardens

Around 800 million litres of water is wasted through leakages in tanks every day, according to the data provided by the BMC. Rainwater harvesting can help save this precious resource

lakh by 2021. We have already received Rs14.59 lakh in the form of subsidy (30%) from the state government. We estimate annual savings of Rs20 lakh from this project," he said.

Prior to the solar installation, the monthly electricity bill for the college was Rs3.25 lakh that fell to Rs1.65 lakh post installation. The campus also uses a net-metering system, which allows surplus power generated through solar panels to be sent back to the grid and any deficiency is imported from the grid.

The college also has a rainwater harvesting system that collects water during the rains for use later. The college estimates that it has saved close to 32 lakh litres of water through rainwater harvesting since 2009. The college complex does not depend on the civic body for its non-potable water consumption. The rooftop and common areas act as catchment for rainwater. The water collected is channelled into a well with a capacity of 50,000 litres, and the water is used in the 45 washrooms on campus. "The water is also used in our gardens. Channels have been dug up through the campus that allows water to drain into the well," said Maniar.

from the grid cannot be accessed.

Nitin Navnitray Maniar, chairman, governing body, Bombay Pharmacy College and special executive officer for the state government, said, "We went for such a large-scale setup because this energy source is

both eco-friendly and cost-effective, and allows us to give something back to the environment."

Founded by the Indian Pharmaceutical Association, Maharashtra State Branch in 1957, the college has over 400 undergraduate, postgraduate and PhD stu-

dents along with 80 teachers and staff members. The college is spread across 65,000 sq ft area with one-quarter-of-an-acre garden that has medicinal plants and a large ground allocated for extracurricular activities and events.

The solar project was completed in two phases. In the first phase, a 50kWp setup at a cost of Rs39.5 lakh in May 2015, and in the second phase in February this year, a 90kWp unit was installed for Rs49.5 lakh. "We expect to recover the entire Rs89

The Indian Pharmaceutical Association, Maharashtra State Branch (IPA-MSB)

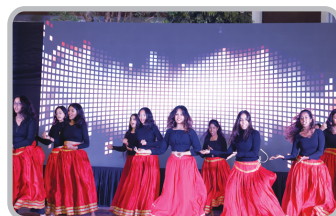
IPA-MSB is a state branch of the IPA initiated in 1941 immediately after the foundation of IPA in 1939. IPA-MSB runs an educational institute, Bombay College of Pharmacy (BCP). The Amrut Mody Research Fund (AMRF), The Research Society of Bombay College of Pharmacy (RSBCP), the Dr. M. K. Rangnekar Memorial Testing Laboratory (MKR), the Academy for Clinical Excellence (ACE), IPA-SF-MSB are other ventures which are governed by IPA-MSB. IPA-MSB is the only state branch of IPA, that has the distinction of getting the BEST BRANCH AWARD constituted by IPA four times i.e. 2004, 2005, 2011, 2012, 2016 and 2017. It has till date 1346 Life members and has active local branches at Pune, Nashik, Aurangabad, Solapur, Nagpur, Kolhapur, Amravati, Dhule, Palghar and Alephata

IPA-Student Forum-MSB (IPA-SF-MSB)

IPA-SF-MSB participates actively under the guidance of IPA-MSB in the organization and conducts the National Pharmacy Week celebrations every year. The Rx Festival, which is a cultural event, is also organized by the Student Forum every year, in which students from all the pharmacy Colleges in Mumbai, Navi Mumbai and Thane region and other parts of Maharashtra participate. The IPA-SF-MSB also publishes a magazine called 'Panache' which is greatly appreciated by the members, industry and academicians.

Some of the Activities (Symposia/Seminars/Lectures, etc.) conducted by IPA-MSB in recent past

- Two day Comprehensive Training Course of Lyophilization Technology
- Tobacco Free future Advocating
- NMR Instrument Demonstration
- Basics, and Software, Literature assisted NMR assignment and Interpretation
- Technical Workshop on Flow Chemistry Technology
- GL- Embarking on the Entrepreneurial Journey: Insights and Lessons for Success
- Workshop-3D Printing Technology: Future of Pharmaceutical Industry Workshop
- PCOD-a Menace Homeopathy-a Boon
- AI for Neuroscience
- Welcome to the world of LinkedIn by Aspire for Her
- ELSZneo Zeta Potential& Particle Size analyser
- IPA Pharmacy week
- Challenges and Opportunities in the Life of Entrepreneurs in the Pharmaceuticals Sector
- Modern Approaches of Biological Agents
- National CGMP Day: Regulatory Perspectives Schedule M Updates
- Financial Literacy
- Universal Human Values: Happiness and Wellbeing for ALL
- Understanding harmony in the Human Being- exploring power of thought
- Understanding harmony in the Human Being- exploring power of thought
- Understanding harmony in the Human Being- exploring human consciousness
- PV Unplugged: Insights into patient safety, compliance costs, swiss system and career opportunities
- Innovation and Sustainable Enterprenership Workshop
- Under the Aegis of Dr. H. P Tipnis Memorial Lecture Series
- Chai pe Charcha- Highly mentoring session for students to pursue careers in management after pharmacy
- Lecture Series-2
- Radiopharmaceuticals Basics of positron emission tomography (PET Scan) bench to bed
- Eye Donation Awareness
- Medical Health Checkup Camp at BCP
- Interactive Session Panel Doctors Health camp
- Applications of D2 labelled compounds
- Annual Day -Every year
- Skill Development Workshop
- Understanding harmony in the Human Being- exploring human consciousness
- BCP-28th
- Sustainable Dressings for Wound healing
- Building a career in pharma-Opportunities & Pathways
- FIP Train the Trainee on vaccination
- Understanding Harmony in Society and Power of thoughts
- Understanding Harmony in Nature-
- Exploring the Self-Human Body
- Professional Ethics
- Research and Publication Ethics
- Financial Literacy
- Placement Talk "Scientific writing: Foundations and Career Opportunities
- Safety Awareness Workshop
- One day Workshop on Basic Cell culture Techniques
- Commercialization of An Invention in India- Translational Nightmare or Scientific Short sight
- Lecture Series-1 Radiopharmaceuticals
- Memorial Lecture Under the aegis of Late Dr. J. N. Banerjee & Late Dr. H. P. Tipnis Endowment
- Methodologies for Evaluating Talent Compaction
- International Yoga Day



VISION



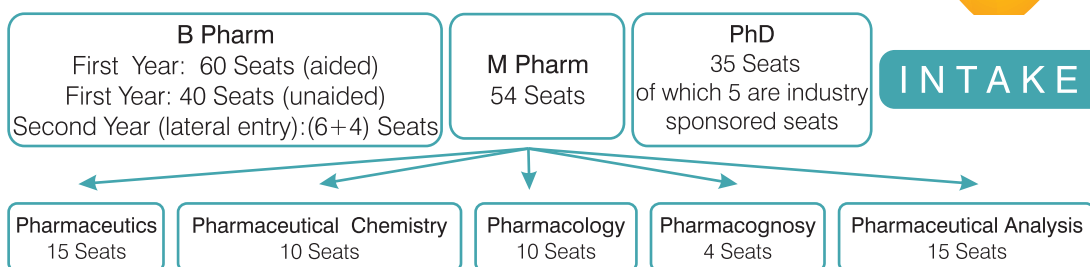
To Provide Excellence in Transformative and Interdisciplinary Pharmacy Education for Fostering Innovation and Research towards Advancement of Sustainable Global Healthcare.

MISSION



- To Provide Quality Education and Training in Pharmaceutical and Allied Sciences.
- To Engage in Collaborative Translational Research in Healthcare Sciences and Technology.
- To Commit towards Social Responsibilities through Outreach Programs, Inculcate Entrepreneurial Spirit, and Promote Lifelong Ethical Learning.

Bombay College of Pharmacy (BCP) is a pioneer institution in pharmaceutical education in India. BCP was founded in 1957 by the Indian Pharmaceutical Association - Maharashtra State Branch (IPA - MSB) with financial assistance from the Government of Maharashtra and several pharmaceutical companies. It is centrally located and well connected by road, rail and air. Since its inception as a college offering a Diploma in Pharmacy, the college has grown in stature and at present offers Bachelors, Masters, and Doctoral programs of study in Pharmaceutical Sciences.



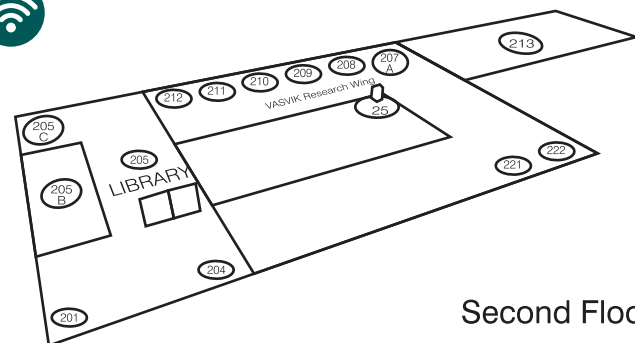
PROGRAM EDUCATIONAL OBJECTIVES

- 1 To attain excellence in disseminating knowledge within the realms of Pharmaceutical, Allied, and Healthcare Sciences
- 2 To excel in imparting practical and laboratory skills, along with field and applied knowledge in Pharmaceutical, Allied, and Healthcare Sciences
- 3 To promote and advance applied research through collaborative projects and experiential learning opportunities
- 4 To nurture leadership and team-building capabilities, entrepreneurial spirit, community service ethos, continuing educational pursuits, and professional ethics
- 5 To promote holistic personality development through co-curricular and extracurricular activities

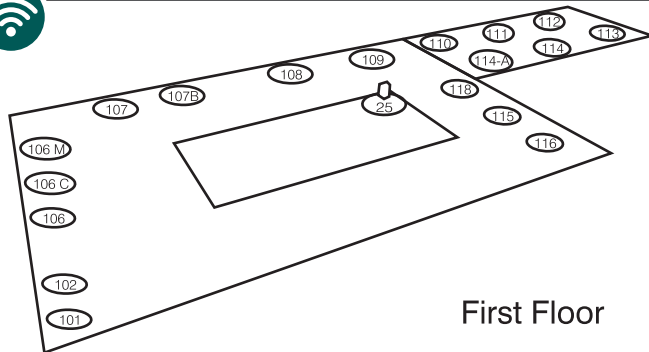


BIRD'S - EYE VIEW

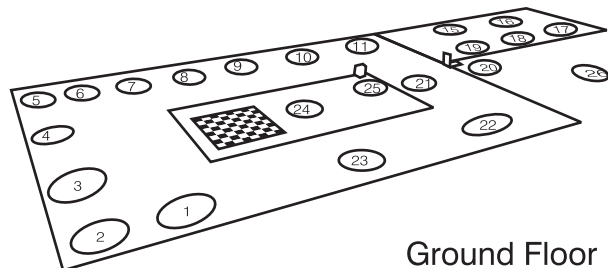
- 223 Terrace
- 222 Tutorial Room
- 221 Tutorial Room
- 214 VASVIK Research Wing
- 213 National Facility for Research and Training
- 212 Pharmaceutical Chemistry Research Lab
- 211 Pharmaceutical Research Lab
- 210 Panacea Lab (Pharmacology Research Lab)
- 209 Pharmaceutical Research Lab
- 208 Wockhardt Research Lab
- 207-A High Speed Computation facility and Server Room
- 206 Micro Lab (MKR)
- 205-C Books (> 10000 books reference section and periodicals)
- 205-B High Speed Network Connected Latest Computer Lab
- 205 Library
- 204 Tutorial Room
- 201 Classroom
- 118 Museum
- 116 Pharmacology lab-Animal House
- 115 Pharmacology Lab
- 114-A Pharmaceutical Chemistry lab-03
- 114 Pharmaceutical Chemistry Lab-02
- 113 Pharmaceutical Chemistry Lab-01
- 112 Pharmaceutical Analysis Research Lab-02
- 111 Pharmaceutical Analysis Research Lab-01
- 110 Tutorial Room
- 109 Classroom
- 108 Sophisticated Central Instrument Room
- 107-B Faculty Room
- 107 Phytochemistry & Pharmacognosy lab
- 106-M Account Department
- 106-C IPA-MSB Office
- 106 Administration Office
- 102 IPA Office
- 101 Conference Room
- 26 Medicinal Plant Garden
- 25 Lift
- 24 "Recreational Area- Carrom Boards-Garden Chess Set-Table Tennis"
- 23 Auditorium
- 22 Boys Common Room
- 21 Canteen Area
- 20 Entry for Disabled
- 19 Pharmaceutical Micro Lab-03
- 18 Pharmaceutical Lab-02
- 17 Pharmaceutical Lab-01
- 16 Seminar Room
- 15 Seminar Room
- 11 Girls Common Room
- 10 Machine Room
- 9 Pharmaceuticals Research Lab
- 8 Faculty Room
- 7 Main Store Room
- 6 Natoli Lab-02
- 5 Natoli Lab-01
- 4 Natoli Office
- 3 Classroom-003
- 2 Classroom-002
- 1 Classroom-001



Second Floor



First Floor



Ground Floor

* Not to scale

* Free usage of Office 365 suite for bonafide students, staff of BCP



: With 120mbps dedicated internet lease connectivity

TRAINING AND PLACEMENT CELL

The placement cell of Bombay College of Pharmacy acts as a contact point for pharma and allied industries that wish to recruit students from the BCP. It also organizes pre-placement talks for corporates who wish to visit the campus for recruitment.

Some of our eminent recruiters include:



INDUSTRY INSTITUTE PARTNERSHIP CELL

The main objective of this cell is to act as a liaison between industries and the BCP. The following are the major activities of the IIP cell :-

- Maintenance, co-ordination & promotion of consultancy services
- Industry study tour programme (ISTP), internship programme & placement of students
- Soft Skill Training for Students

- Industrial training and industrial visits for students
- Industrial exhibitions
- Training of industrial personnel in Bombay College Pharmacy
- Guest lectures
- Skill Development facilities using online platforms
- Hospital Visits



The achievements of alumni of BCP themselves speak of the quality of education and training given here. The alumni are successful entrepreneurs, businessmen, consultants, scientists, administrators and academicians.

Photograph of some alumni functions



AWARDS AND ACCOLADES OF FACULTY

Few of the Awards and Accolades of Faculty of BCP are listed below :



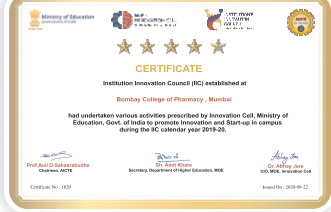
Prof. Krishnapriya Mohanraj	2024	Bharat Shiksha Gaurav Puraskar for outstanding achievements and remarkable contribution in field of Pharmaceutical Education.	Prof. Mala Menon	2019	Distinguished Professor Award (National Science & Technology Management Informatio System, DST)
Prof. Krishnapriya Mohanraj	2024	Global Chair- Dissolution Research Presentations International (DRPI) by society for pharmaceutical dissolution science.	Prof. Mala Menon	2018	Award for Promising Innovation in Solid Dosage Form (IPA-ACG Sci Tech)
Dr. Alka Mukne	2024	Distinguished Scientist Award American Association of Indian Pharmaceutical Scientists (AAIPS) for excellence in Pharmaceutical Sciences.	Prof. Mala Menon	2018	Best Professor in Pharmaceutics (Dewang Mehta National Education Award)
Dr. Alka Mukne	2023	IPA Prof. M. L. Khorana Memorial Lecture Award	Prof. Mala Menon	2018	IPA-ACG Scitech Innovation Award in Solid Dosage Development
Dr. Anuradha Majumdar	2023	Most Influential Professor Award 30th Edition of Business School Affairs. Anveshan Western Zone Gold in Health Sciences	Prof. Mala Menon	2017	Best Professor of Pharmaceutics (National Education Award)
Dr. Anuradha Majumdar	2023	Most Influential Professor Award 30th Edition of Business School Affairs. Anveshan Western Zone Gold in Health Sciences	Prof. Mala Menon	2017	Distinguished Professor Award Sponsored by NSTMIS a DIVN of DST
Prof. Krishnapriya Mohanraj	2023	Most Iconic Healthcare Leader (Global) Award (World Health and Wellness Congress)	Prof. Krishnapriya M.	2017	First Prize at 8 th Indian Youth Science Congress
Prof. Krishna Iyer	2023	First Prize at Asia Pacific International Society for Study of Xenobiotics	Dr. Alka Mukne	2016	Fellowship of Indian Pharmaceutical Association (IPA)
Prof. Krishna Iyer	2022	Consolation Prize at Avishkar Research Convention	Prof. Mala Menon	2016	Dr. P. D. Patil Best Pharmaceutical Scientist Award from APTI Maharashtra
Dr. Harita Desai	2022	Second Prize in 17th Avishkar Inter Institute Research Convention	Prof. Krishnapriya M.	2016	2 nd Prize in Avishkar for Poster and Oral Presentation
Dr. M. S. Nagarsenkar	2022	Lifetime Achievement (The IPA MSB-SF)	Prof. M. N. Saraf	2015	Amrut Mody Distinguished Researcher Award
Dr. Alka Mukne	2021	Distinguished Women Teacher (Contas College of Pharmacy)	Dr. Anuradha S. Majumdar	2014	Gold Medal in Avishkar
Dr. Evans Coutinho	2021	Lifetime Achievement (The IPA MSB-SF)	Prof. M.S. Nagarsenkar	2013	Mrs. Manjushree Pal Best Researcher National Award
Dr. Mala Menon	2021	Lifetime Achievement (The IPA MSB-SF)	Prof. M.S. Nagarsenkar	2012	Amrut Mody Distinguished Researcher Award
Prof. Krishnapriya	2020	101 Fabulous Global Health care leader Award (World Health and Wellness Congress & Awards)	Prof. Krishnapriya Mohanraj	2012	Dr. P. D. Sethi Annual Award
Dr. M. S. Nagarsenkar	2019	World top 2% (Stanford University, USA)	Dr. Savita R. Kulkarni	2011	Dr. P. D. Sethi Annual Award
Dr. Ujwala Shinde	2019	Best Professor in Pharmaceutics (Dewang Mehta National Education Awards)	Dr. Alka Mukne	2008	Biographical Listing in Marquis who's who in Science & Engineering
Prof. Mala Menon	2019	Distinguished Professor Award (National Science & Technology Management Informatio System, DST)	Mr. Mushtaque S. Shaikh	2006	Best emerging Scientist Award at Focus India
			Dr. Alka P. Mukne	2006	Outstanding Achievement Award by IPA
			Prof. M. N. Saraf	2004	Best Principal Award by APTI
			Prof. Evans C. Coutinho	1995	Career Award for Young Teachers by AICTE
			Prof. Evans C. Coutinho	1993	PAMDAL Best Teacher Award





	2022 Prestigious Scholarship 'Prime Ministers' Fellowship for Doctorate Research with industry Partner Bliss GVS Pharma Limited under DST, SERB awarded to Ph. D Student 8/12/2021	2017 Accreditation for 5 years by NBA	1995 Inauguration of 'Ramesh Banatwala Memorial Industrial Pharmacy Laboratory' and Permanent Affiliation to University of Mumbai
	2022 4 Star rating for institution innovation council (IIC)	2017 Grant Rs. 5.87 Crores from DST DPRP for National Facility for Research & Training	1993 International Symposium on "Update on Bioavailability and Bioequivalence"
	2021 Started a Certificate Course in Data Analytics in Healthcare in collaboration with Navigo Analytix	2016 Ranked 6 th amongst Pharmacy Institutions by MHRD under NIRF	1990-1993 Foundation and opening of "Bioavailability Centre"
2025 In collaboration with Pharmacad started guiding academically weaker students.	2021 Ranked 25 th among Pharmacy institution by MHRD National Institutional Ranking Framework (NIRF)	2015 IndPact Mentor Award for Best Industry - Linked Pharmacy Institute from AICTE-CII	1987 The VASVIK Research Wing was inaugurated and an International Symposium on "Controlled Release Dosage Forms" was held and the Staff Quarters for senior faculty members was constructed
2025 In collaboration with Digital Health Associates started Professional Development Program in Digital Health for Pharmacists.	2021 Selected as host Institute for Distinguished Chair Professor Scheme of AICTE	2015 BCP and University of Mumbai fetched First runner up Trophy in national research competition AVISHKAR	1984 The Silver Jubilee of the college was celebrated and an International Symposium on 'Advance in Drug Delivery System' was held
2025 In collaboration with Pharmacad started training to students to prepare them for GPAT/NIPER/ MBA Entrance exams.	2020 Ranked 24 th among Pharmacy institution by MHRD National Institutional Ranking Framework (NIRF)	2014 Best Industry Linked Institute in Pharmacy category from AICTE- CII	1982 The M.S.D auditorium, with seating capacity of 500 was opened
2025 A Fire alarm system has been installed in the campus for enhanced safety.	2019 Conferment of Autonomous Status from 2019-20 to 2028-29	2013 Best Industry Linked Institute in Pharmacy category from AICTE- CII	1981 The Research Society of the Bombay College of Pharmacy was formed and registered with the Department of Scientific and Industrial Research (DSIR), Govt. of India
2024 Successfully completed 10 yrs of Green Energy.	2019 Presented with National Education leadership Award by ABP News	2013 Ranked Country's 4th Best Pharmacy College by a Survey	1977 The Second Commonwealth Pharmaceutical Congress jointly with the 28th I.P.C.A and the Pharma Expo-77
2022 Collaboration with Natoli-BCP Institute for Research and Industrial Pharmacy Training (NBIRIPT) to conduct training programs & accept contract Research projects from Pharmaceutical/Nutraceutical, confectionery industries.	2019 Ranked 24 th among Pharmacy institution by MHRD National Institutional Ranking Framework (NIRF)	2013 Inauguration of Radioimmuno-assay Laboratory (RIA Lab)	1976 The UNESCO Microbiology workshop
2022 Successfully conducted the biodiversity audit with geotagging and QR coding of all the trees.	2019 FICCI 6 th higher education excellence award special Jury mention for Excellence in Enabling Research Environment	2011 BCP and University of Mumbai fetched Gold Medal(s) and a Trophy in AVISHKAR	1973 BCP was affiliated to the Mumbai University for the M. Pharm & the PhD (Tech) course. The College also received its first research grant from CSIR. Since then several important events have marked the progress of BCP
2022 Started Degree, PG & PG. Diploma program in Integrative Nutrition, Dietetics & Health in collaboration with Lifeness Science Institute LLP (LSI) affiliated to Mumbai University.	2018 2 nd Prize-Best Industry Linked Institute in Pharmacy category from AICTE-CII	2011 Postgraduate Course in Pharmaceutical Analysis with intake for 18 students	1970 BCP was affiliated to the Mumbai University for the B. Pharm course
2022 Nominated by DTE, Regional office for Green Campus Award	2018 Ranked 8 th among Pharmacy institution by MHRD National Institutional Ranking Framework (NIRF)	2008 Golden Jubilee Celebrations. An International Symposium "Designing the future New Medicines and New Methods" conducted on 18 th and 19 th Jan. 2008 at Hyatt Regency Mumbai	1966 The Building at Kalina was inaugurated and BCP hosted the 18th Indian Pharmaceutical Congress
	2017 Ranked 15 th amongst Pharmacy institutions of India under NIRF MHRD	2008 Accreditation for 5 years by NBA	1957 The Diploma course was started and BCP was formally constituted
		2004 FIST grant from DST for improving infrastructure	1956 The idea of establishing the Bombay College of Pharmacy (BCP) was formulated under the leadership of the Late Prof. M. L. Khorana in 1956, in the form of a short term course called "Practicing Pharmacists Training (PPT) course"
		2001 Patents Awareness Workshop in Collaboration with TIFAC- Govt. of India	
		1998 Golden Jubilee IPCA Conference Jointly with FAPA Conference	





Faculty:

Dr. Ujwala Shinde, Ph.D. (Tech), Professor, Head of Dept.
(ujwala.shinde@bcp.edu.in)

Dr. Clara Fernandes, Ph.D. (Tech), Associate Professor
(clara.fernandes@bcp.edu.in)

Dr. Shubhangi Aher, Ph.D. (Tech), Assistant Professor
(shubhangi.aher@bcp.edu.in)

Dr. Harita Desai, Ph.D. (Tech), Assistant Professor
(harita.desai@bcp.edu.in)

Dr. Mangal Nagarsenkar, Ph.D. (Tech), Professor Emeritus
(mangal.nagarsenkar@bcp.edu.in)

Dr. Mala Menon, Ph.D. (Tech), Adjunct Professor
(mala.menon@bcp.edu.in)

Dr. Dudekula Chandbasha, Ph.D. (Tech), Assistant Professor (Dudekula.Chandbasha@bcp.edu.in)

Ms. Pranita Bhangare, M. Pharm, Assistant Professor (Pranita.Bhangare@bcp.edu.in)

Ms. Pankti Ganatra, M. Pharm, Assistant Professor (Pankti.ganatra@bcp.edu.in)

Mr. Parimal Hadge, M. Pharm, Assistant Professor (Parimal.Hadge@bcp.edu.in)



The Department of Pharmaceutics is dedicated to undergraduate teaching and is actively involved in research at the post graduate (M. Pharm. and Ph.D.) level. The department is equipped with the necessary infrastructure essential for smooth undergraduate teaching. The department also has state-of-the-art facility to support post graduate research activities.

Key Research areas :

- Novel Drug Delivery Systems-Liposomes, Niosomes, Polymeric micelles, Microparticles, Nanoparticles, & Implants.
- Solubility enhancement technology - Cyclodextrin based systems, Crystal engineering
- Polymeric coatings and Pelletization
- Novel veterinary formulations
- Polymer Synthesis, design of ligands for targeting
- Mucosal vaccine delivery
- Development of analytical methods and validation. **in-vitro** dissolution and permeation methodologies
- Sustained and controlled release systems for oral, pulmonary, nasal, ocular, transdermal and vaginal applications

The Industrial Pharmacy Laboratory (BCP) has facilities in collaboration with Natoli Engineering, USA

- For solid dosage forms, which include rapid mixer granulator, GMP model compression machine and dissolution test apparatus.
- For novel systems which include probe sonicators, high speed homogenizer, spray dryer, freeze dryer, type 4 dissolution test apparatus, vertical diffusion cells, high pressure homogenizer, DSC, particle size analyzers and HPLC systems.
- For Pulmonary targeted formulation which include Anderson cascade impactor & Twin stage impactor.

Collaborations

The department also collaborates with pharmaceutical corporate clients for preformulation, formulation development and pilot plant scale up projects. Some of the clients include :

- | | |
|--------------------------|---------------------------|
| • Abbott India Ltd | • Mother Dairy |
| • ACG Group | • M/s Infovet |
| • Brassica Pharma | • Saifee Vetmed Pvt. Ltd. |
| • Gattefosse (I) Ltd. | • IMCD India Pvt. Ltd. |
| • Lubrizol Life Sciences | • Colorcon Asia Pvt. Ltd. |
| • Macleods Pharma Ltd. | • Arihant Innochem |
| • Marico Ltd. | |



Department has established several research international as well as national collaborations in areas of drug delivery research. Department has successfully collaborated with:

- Bristol Myers Squibb, USA
- Centre of Drug Research, University of Helsinki, Finland
- Department of Pharmaceutical Technology, Goethe University, Germany
- Interactual Department of Pharmaceutical Technology, University of Jena, Germany
- Janssen Pharmaceuticals, Belgium
- Lupin Pharmaceuticals, USA
- VLAIO, Belgium
- Yuvan Research, USA
- Natoli Engineering, USA



National Collaborations :

- Advanced Centre for Treatment, Research and Education in Cancer (ACTREC, Navi Mumbai)
- Agharkar Research Institute, Pune
- Board of Radiation and Nuclear Science (BRNS, Mumbai)
- Bombay Veterinary College (Mumbai)
- Department of Pharmacy, Tripura University (Central Chemistry)
- GS Medical college and KEM Hospital (Mumbai)
- Haffkine Institute (Mumbai)
- Institute of Chemical Technology, Mumbai
- Serum Institute of India (Pune)
- Centre for excellence in Basic Science, University of Mumbai



Department also provides services in characterization of drug delivery systems which include:

- Size Determination using Beckmann Coulter, USA
- Zeta Potential using Malvern NanoSizer Series ZS (UK)
- In vitro lung deposition using Andersen Cascade Impactor, Copley Scientific, UK
- In vitro skin permeation studies using Vertical Diffusion Cell, Hanson Research, US
- Differential Scanning Calorimetry Studies using DSC, Mettler Toledo, Switzerland
- Size reduction using high pressure homogenizer
- R&D Scale batches on Spray Drier, Fluid Bed Coater, Freeze Dryer.



Publications:

More than 200 publications in high impact factor journals like

- | | |
|--|---|
| • AAPS PharmSciTech | • Journal of Drug Delivery and Therapeutics |
| • Carbohydrate Research | • Journal of Drug Delivery Science & Technology |
| • Dissolution Technology | • Journal of Microencapsulation |
| • Drug Development and Industrial Pharmacy | • Journal of Pharmaceutical Innovation |
| • International Journal of Pharmaceutics | • Journal of Pharmaceutical Sciences |
| • International Journal of Biological Macromolecules | • Molecular Pharmaceutics |
| • Journal of Controlled Release | • Respiratory Drug Delivery (Proceedings of Conference) |
| • Journal of Cosmetic Science | |

Faculty has contributed chapters in several books and has acquired patents and trademarks.

Faculty is frequently invited to deliver lectures in field of novel drug delivery systems.

More than 300 posters have been presented by the department in national and international conferences, symposia and seminars.



Faculty:

Prof. Krishna Iyer, Ph. D., Adjunct Professor,

(krishna.iyer@bcp.edu.in)

Dr. Premalata Ambre, Ph. D., Associate Professor & HoD,

(premlata.ambre@bcp.edu.in)

Mr. Abhijeet Daalvi, Ph. D. (pursuing), Assistant Professor,

(abhijeet.dalvi@bcp.edu.in)

Dr. Tripti Sharma, Ph. D., Associate Professor,

(Tripti.sharma@bcp.edu.in)

Rachna Kaul, Assistant Professor & Controller of Examination, Ph. D., (Rachna.Kaul@bcp.edu.in)

Mr. Avinash Rangaraju, M. Pharm., Assistant Professor, (Avinash.Rangaraju@bcp.edu.in)

Ms. Khushboo Begwani, Ph. D. (pursuing), Assistant Professor, (Khushboo.Begwani@bcp.edu.in)

Ms. Kusum Mehta, M. Pharm., Assistant Professor, (Kusum.mehta@bcp.edu.in)



Research Guide from other departments:

- Dr. Krishnapriya Mohanraj, Ph. D. Tech, Professor
- Dr. Vaishali Shirsat, Ph. D., Associate Professor, Head of Department (Pharmaceutical Analysis)

Areas of Research:

- Pharmacokinetics
- Waste water treatment
- Multidimensional and multinuclear NMR
- Process development for intermediates and bulk drugs
- Plant xenobiotics metabolism
- Synthetic medicinal chemistry
- Drug metabolism
- Polymer-drug conjugates for metabolic disorders & chronic wound healing
- Cell and molecular biology
- Computer- aided drug design: Docking, virtual screening, QSAR, molecular dynamics
- Protein modelling
- Herbal-drug formulations

Facilities available in the department include:

- Rotavap
- Cooling Centrifuge Machine (Biofuge stratos)
- Biofuge stratos
- Lyophilizer (Labogene)
- Rolling Ball Viscometer (Anton Paar)
- Microwave Synthesizer (CEM-Discover)
- Fume Hood
- Water bath shaker Remi Equipments
- Multichannel parallel synthesizer Autochem
- pH meter
- High performance liquid chromatography/Gel Permeation chromatography (Waters)
- High performance liquid chromatography (Jasco 4000 series)
- Photo diode array detector
- Flash Chromatography
- Jasco HPLC with PDA and fluorescence detector
- Jasco UV- visible spectrometer
- Shimadzu HPLC with dual wavelength
- CAMAG HPTLC
- In silico: AMBER, ORCA, GROMACS, AUTO DOCK VINA



"Student secured First Prize at Maharashtra State Inter-University AVISHKAR Research Convention"

Services provided by the department:

- Analysis of GPC sample using Water's RI Detector
- Comparative analysis of FCM Injection
- Analysis of Viscosity sample
- FBD of the samples
- In silico studies



Extra mural funding:

- All India Council of Technical Education(AICTE-RPS/MODROBS)
- Council of Scientific and Industrial Research (CSIR)
- Department of Science and Technology (DST)
- Spring Bank Pharmaceuticals, USA

Collaborative Programs of the department with industry and institutes:

- Neoven lab Instrument
- Emcure Pharmaceutical Ltd.
- Carister Labosteries
- EVONIK
- Rudraksha chemical allied
- Purnima Analytics
- Agharkar Research Institute, Pune
- Arati Chemicals, Thane
- Alantas Beck, Pune
- Chandigarh College of Pharmacy, Mohali, Punjab
- Chemworks, Mumbai
- Central Effluent Treatment Plant, Ambernath
- Department of Chemistry, Saurashtra University, Rajkot
- Department of Molecular Microbiology and Immunology, Bloomberg School of Public Health, Johns Hopkins University, USA
- Haffkine Institute, Mumbai
- Indofil Ltd., Thane, Maharashtra
- Kenpack Pharma
- University of Mumbai
- University Grants Commission (UGC)
- Department of Biotechnology (DBT)
- BASF, Germany
- Bristol Meyers Squibb (BMS, USA)
- APG Life Science
- Aarti industries
- Elantas Beck Ltd.
- Institute for Pharmaceutical and Medicinal Chemistry, Henrich-Heine University, Dusseldorf, Germany
- KEM Hospital
- Kingston University, London
- Omshri Labs, Mumbai
- School of Biochemistry, University of Bristol, UK
- Tata Consultancy Services
- Tuberculosis Research Centre University of Lillinois, Chicago, USA
- UM-DAE Center for Excellence in Basic Sciences, Mumbai
- University Institute of Pharmaceutical Sciences, Punjab University, Chandigarh
- DRDO
- St. John Institute of Pharmacy & Research
- Guru Nanak College of Pharmacy, Nagpur

Publications:

More than 200 research publications in high impact factor journals like:

- Biotechnology for Sustainable Materials
- Journal of Pharmaceutical Sciences
- Molecular Pharmaceutics
- International Journal of Research in Medical Sciences
- ACS Applied Bio Materials
- Indian Journal of Pharmaceutical Sciences
- World Journal of Pharmaceutical Research
- Journal of Computational Chemistry
- QSAR and Combinatorial Science
- Journal of Peptide Science
- Bio-organic and Medicinal Chemistry
- Chemical Research in Toxicology
- Biopolymers
- Water Science & Technology
- Journal of Emerging infectious diseases
- Biomedical Research Journal
- Journal of Biological Macromolecules
- European Journal of Pharmacology
- PLOS One
- The Journal of American Chemical Society
- Journal of Organic Chemistry
- Biochemistry
- FEBS Lett
- Tetrahedron
- Journal of Computer Aided Molecular Design
- Journal of Molecular Graphics and Modeling
- Journal of Molecular Modeling
- Drug Metabolism and Disposition
- Biomaterials
- Journal of Medicinal Chemistry
- Current Drug Delivery
- International Journal of Biological Macromolecules
- Water Practice & Technology
- Journal of Chemical Information and Modeling
- Journal of Biological Chemistry
- The Nucleus

Student Research fellowship:

APG Pharma Research Lab LLP

Faculty members have made significant scholarly contributions, authoring chapters in numerous patents, books, and encyclopedias. Over 350 research papers have been published and presented by the faculty at various national and international conferences, symposia, and seminars. Additionally, they have been invited to deliver lectures at prestigious academic events including conferences, seminars, and workshops.

Book chapters:

- CRC Press
- Springer
- Elsevier
- Taylor & Francis Group



FACULTY:

Dr. Anuradha Majumdar, Ph.D. (Tech) - HoD,
Associate Professor & Former Dean, Faculty of Science and
Technology, University of Mumbai (anuradha.majumdar@bcp.edu.in)
Ms. Mayuri Padhye, M. Pharm, Assistant Professor
(mayuri.padhye@bcp.edu.in)
Ms. Hiral Surani, M. Pharm, Assistant Professor
(hiral.surani@bcp.edu.in)
Ms. Pragati Gurav, M. Pharm, Assistant Professor
(Pragati.gurav@bcp.edu.in)



The Department of Pharmacology, Bombay College of Pharmacy, is reputed for its preclinical research in India. The department offers Master and Ph.D. in Pharmacology. This course is approved by the All India Council of Technical Education, Directorate of Technical Education, Maharashtra State and the University of Mumbai. The department boasts of experienced and renowned faculty and well equipped Pharmacology and Toxicology laboratories. The laboratories are designed to cater to preclinical pharmacological and toxicological evaluations of drugs/herbals/phytochemicals using contemporary in vivo and in vitro tools. The department has been prolific in its outcome of successful completion of several industry and Government sponsored projects.

This programme is approved by the Pharmacy Council of India. Directorate of Technical Education Maharashtra State and the University of Mumbai.

Some of our Research Expertise:

Pharmacological screening and evaluation in the domain of:

- Inflammation and Immunology
- Cardiovascular and Respiratory disorders
- Cancer
- Cellular and Molecular Biology
- Diabetes and Metabolic disorders
- Neuropharmacology and Behavioural Pharmacology
- Pharmacokinetics
- Safety Pharmacology and Toxicology
- Metalloid toxicity studies
- Herbal and Phytochemical analysis
- Metabolism and Pharmacokinetic studies
- NDDS
- Consultancy in pharmacological and toxicological field
- Medical writing (Publication and Medical Information)
- Network Pharmacology
- Kidney Disorders
- Transdisciplinary research which includes Environmental toxicity due to Microplastics and Nanoplastics.
- Herbal and Phytochemical analysis and Evaluation
- Pharmacovigilance

Facilities available in the department include:

- CPCSEA approved animal house facility.
- HPLC with PDA and fluorescence detector.
- Intracerebroventricular (i.c.v.) drug delivery and CSF aspiration in rodents using Stereotaxic apparatus and Nanomite pump.
- Real time Polymerase Chain Reaction based Equipments both semi-quantitative PCR and RT-qPCR.
- Zebra fish and Drosophila Experimental facility.
- Physiological data acquisition system like, 8 and 4-channel Power Lab data acquisition system with Spirometry, ECG, NIBP, IBP, NCV, isolated muscle preparation nerve electro physiology measurements etc.



- Protein quantification and characterisation through western blot, gel electrophoresis and gel documentation system.
- Dedicated mammalian cell culture facility for Cell Proliferation and Cytotoxicity studies.
- Other instruments include Roteva Rotary evaporator, Plethysmometer, hot plate, Actophotometer, Rota-rod, Cooks pole climbing apparatus, forced swimming test apparatus, rodent and zebrafish mazes, recording devices etc.
- The biochemical parameter assessment through blood-gas analyzer, auto-analyzer, cell counter, ELISA Plate reader.
- Immuno Histo chemistry, facility for tissues.
- *C. elegans* experimentation facility.

Funding, infrastructural support, collaborative research and industrial projects, consultancy assignments include:

Funding Agency (Government)

1. All India Council for Technical Education (AICTE)
2. Council of Scientific & Industrial Research (CSIR)
3. Department of Science and Technology (DST)
4. Department of Biotechnology (DBT)
5. University Grants Commission (UGC)
6. Indian Council of Medical Research (ICMR)
7. Board of Research in Nuclear Sciences (BRNS)
8. University of Mumbai
9. Department of Biotechnology - Biotechnology Industry Research Assistance Council (DBT-BIRAC)
10. Department of Foreign Affairs & Trade, Australian Government, Australia-India Indo Pacific Oceans Initiative Partnership (AIPOIP)

Funding Agency (Industry)

Alembic Ltd., Aurobindo Pharma Ltd., Bharat Serums and Vaccines Ltd., Cipla Ltd., Clinworld Pvt. Ltd., Criticare Laboratories Pvt. Ltd., Elder Pharmaceuticals Ltd., FDC Ltd., Glenmark Pharmaceuticals Ltd., Gufic Healthcare Ltd., Hetero Drugs Ltd., Hindustan Lever Ltd., Ipca Laboratories Pvt. Ltd., Kopran Ltd., Khandelwal Labs Ltd., Lupin Laboratories Ltd., Macleods Pharmaceuticals Ltd., Marico Ltd., Medley Pharmaceuticals Ltd., Micro Labs Ltd., Siro Clinpharm Pvt. Ltd., Sun Pharmaceutical Industries Ltd., Shreya Life Sciences Ltd., Sandu Pharmaceuticals Ltd., Themis Medicare Ltd., Torrent Pharmaceuticals Ltd., Unichem Laboratories Ltd., Yasham P2D Life Sciences, Lamar Group of Companies, Charak Pharma Ltd., Pfizer India Ltd.etc.



The department also conducts “Technical Developmental Programs” for industry personnel on:

- Skill development program for Industry personnel and students in animal handling and preclinical pharmacological evaluation methods.
- Skill development program for nurses and pharmacists on Anti microbial Stewardship Programme, Prescription Audit based Medicine optimization and Scheduled Drug Management for Hospital Pharmacists.

Consultancy Services:

- Consultancy Services in the field of Preclinical & Clinical Pharmacology



Faculty:

Alka Mukne, Ph.D., Assistant Professor, I/C Head of Department (alka.mukne@bcp.edu.in)

Vishvanath Vaidya, M. Pharm, Assistant Professor (vishvanath.vaidya@bcp.edu.in)

Jyoti Kumari Jha, M. Pharm, Assistant Professor (jyoti.jha@bcp.edu.in)

Sonali Dangat, M. Pharm, Assistant Professor (sonali.dangat@bcp.edu.in)

Sachin Wankhede, M. Pharm, Assistant Professor (sachin.wankhede@bcp.edu.in)



The Department of Pharmacognosy and Phytochemistry offers Masters and Doctorate in Pharmaceutical Sciences, approved by All India Council of Technical Education (AICTE), Directorate of Technical Education, Pharmacy Council of India (PCI), Maharashtra State University of Mumbai.

The Department of Pharmacognosy & Phytochemistry has a reputation for excellence in research and has experienced and technically - competent faculty with the following areas of expertise:

- Standardization of crude drugs and herbal extracts
- Bio-activity guided fractionation of herbal extracts
- Evaluation of therapeutic potential of crude drugs and their various extracts
- Study of different parameters of extraction of herbal drugs and optimization
- Isolation and characterization of phytoconstituents from herbal extracts
- Evidence based bioactivity evaluation of herbs, Ayurvedic formulations & nutraceuticals
- Solubility manipulations of drugs of natural origin by various techniques
- Development of conventional formulations and Novel Drug Delivery Systems of herbal extracts & Nutraceuticals
- Analytical method development and validation for crude drugs, herbal extracts and herbal formulations by HPLC, HPTLC and other chromatographic techniques
- Stability studies and shelf life study of herbal & Nutraceutical formulations
- Development and evaluation of Ayurvedic formulations, Nutraceuticals and cosmeceuticals



The department is well-equipped with state-of-the art equipment and facilities for conducting first-grade research in the area of herbal drug discovery, development and evaluation. Given below are few of the high-end equipment available with the department:

- Shimadzu HPLC with PDA detector & autosampler
- CAMAG HPTLC with LINOMAT V Applicator and Scanner
- Agilent HPLC with Quaternary pump & PDA Detector
- Supercritical Fluid Extractor
- Buchi Rotary Vacuum Evaporator
- Virtis Lyophilizer
- Esco Class II Biosafety Cabinet
- BioRad ELISA Reader
- Gel electrophoresis
- Esco CO2 incubator
- Air Purifier

The Department has received funding for its research projects from various government funding agencies including DBT, BARC - BRNS, AICTE, CSIR, UGC and University of Mumbai.

In addition, the department has successfully completed projects sponsored by industry including German Remedies, Marico, Zandu pharmaceutical works, Charak Pharma, Anazeal analyticals and Omniaactive Health Technologies. The department has also been engaged in guiding B Tech & MD students of Ayurved faculty regarding the formulations. Many such funded projects also have been completed.

Medicinal plant garden

The Department has developed a lush, well maintained medicinal plant garden with almost 60 QR - coded herbs of medicinal value. The adjunct literature of the planted medicinal herbs of the garden and Pharmacognosy museum has also been maintained and updated by the department.



Faculty:

Dr. Krishnapriya Mohanraj, Ph.D. (Tech), Professor
(krishnapriya.mohanraj@bcp.edu.in)
Dr. Vaishali Shirsat, Ph.D. (Tech), Associate Professor and
Head of the Department (vaishali.shirsat@bcp.edu.in)
Dr. Archana A Naik, Ph.D. (Tech), Associate Professor
(archana.naik@bcp.edu.in)
Dr. Anagha. C. Raut, Ph.D. (Tech), Associate Professor
(anagha.raut@bcp.edu.in)
Ms. Kalyani Joshi, M. Pharm, Assistant Professor
(kalyani.joshi@bcp.edu.in)



Established in 2012, the Department of Pharmaceutical Analysis brings another dimension to specialized research arena at Bombay College of Pharmacy. The department is actively involved in training students at undergraduate and postgraduate levels. The department offers Master of Pharmacy Course in Pharmaceutical Analysis which is approved by the All India Council of Technical Education, Directorate of Technical Education, Maharashtra State and the University of Mumbai for an intake of 15 students per year. The Department has state-of-the-art laboratories, supported by good infrastructure and well-trained faculty.

Distinguished mentors of department:

The department is privileged to have following distinguished mentors who help and guide the department in its various activities including curriculum development, research and resource mobilization.

- Dr. A. J. Vaidya, Director, Analytical Solutions
- Dr. Manish Gangrade, Vice President, Analytical R&D & Regulatory Affairs (API), Cipla Ltd.
- Mr. V. U. Kshirsagar, Director & CEO, TRAC Pharma Consulting

Some of our research expertise:

- Analytical and Bio-analytical method development and validation
- Spectrophotometric multi-component analysis
- HPLC and HPTLC analysis
- Chiral chromatography
- Stability indicating methods, Impurity profiling
- Metabolism and Pharmacokinetic studies
- Herbal and Phytochemical analysis, Drug-herb interaction studies
- Bioactivity guided fractionation of herbal extracts
- In silico analysis and Computer-aided Drug Discovery
- Bioassays, High throughput assay method development
- Structural elucidation assignments
- Polymer synthesis and their evaluation
- LC-MS/MS, HPTLC-MS & ICP-MS Analysis (both qualitative and quantitative analysis)
- Nitrosamine and NDSRI analysis



Some Therapeutic areas of interest:

- Antimicrobial: Anti-bacterial, Anti-fungal, Anti-HIV
- Anti-platelet
- Angiogenesis



Facilities available in the department include:

- LC-MS/MS - Qtrap (Sciex)
- ICP-MS
- Agilent LHPLC and HPLC with PDA detector
- Jasco HPLC with UV detector
- Jasco HPLC with PDA and Fluorescence detector
- Jasco UV-Visible Spectrophotometer
- CAMAG HPTLC and HPTLC-MS interface
- Gas Chromatography
- FTIR
- Rotary Evaporator
- Molecular Modeling Facility
- Solid Phase Extractor
- Low Temperature Synthesizer
- Nitrogen Evaporator
- Microbiological testing including resazurin microtitre assay (REMA)
- Cell Culture Facility



Funding, Collaborations and Technology transfer:

The departmental faculty received substantial **funding from government agencies** namely All India Council of Technical Education (AICTE), University Grants Commission (UGC), Department of Biotechnology (DBT), Department of Science & Technology (DST), National Medicinal Plants Board, Department of AYUSH and University of Mumbai for research projects and travel.

In 2017, **Department of Science and Technology (DST)** sanctioned grant of **Rs. 5.87 crores** for establishment of a **National Facility for Research and Training in Integrated Analytical Strategies for Discovery, Development and Testing of Drugs, Pharmaceuticals and Nutraceuticals** under the Drugs and Pharmaceutical Research Program. The facility includes sophisticated high end analytical instruments viz. **LC-MS-MS, ICP-MS, and HPTLC-MS**.

The faculty collaborates with various pharmaceutical industries and academic institutes for infrastructural support, research, consultancy assignments and technology transfer -

- | | | | |
|--|---------------------------------------|---|-------------------------------------|
| • Aarti Healthcare | • Analytical Solutions | • Nerlikar Hospital | • Macleods Pharmaceuticals |
| • GlaxoSmithKline Pharma Ltd | • S.G. Pharma | • Schrödinger | • Nature Pure Extracts |
| • Shogun Organics | • Loba Chemie | • School of Pharmacy, Kingston University, UK | • Dharmayug Prioscience, ACG World |
| • Unichem | • School of Science, NMIMS University | • Microtracers, USA | • IQGEN-X Pharma Pvt. Ltd. |
| • T. N. Medical College and B.Y.L. Nair Hospital, Mumbai | • Ambernath Organics | • Anshul Life Sciences | • Blue Cross Laboratories Pvt. Ltd. |
| • Aventis Pharma | • Sandu Pharmaceuticals Ltd | • G S Medical College & KEM Hospital | • Rubicon Research India Pvt. Ltd. |
| | | | • Evonik |

The department conducts “Technical development programs” for industry personnel on -

- Analytical skill development
- Chromatographic techniques (Fundamentals, TLC, GC, HPLC, UHPLC)
- Spectroscopic techniques (UV, IR, NMR-1H, 13C, 2D NMR)
- Mass spectrometric and hyphenated techniques (LC MS/MS, GC MS/MS, HPTLC MS, ICP MS)



Amrut Mody Research Fund (AMRF) was created out of a donation from Unichem Laboratories Ltd by Late Shri A.V. Mody to form the corpus of Amrut Mody Research Fund. The main objective of the Amrut Mody Research Fund is to recognize and encourage research carried out in the field of pharmaceutical and allied sciences in the Bombay College of Pharmacy (BCP) and such other pharmaceutical institutions in India.

Late Shri Amrut V. Mody was a visionary industrialist who believed in good health as a basic human need. He was committed to providing medicines, especially to the economically backward sections of the society. In this endeavor he founded the Unichem Laboratory, one of the few earlier domestic pharmaceutical industries in 1944.

He was also committed to quality professional education and research and was instrumental, along with others in establishing and supporting the BCP. The College was to provide trained man power needed for the pharmaceutical industry and the profession. In this pursuit he established Amrut Mody Research Fund in 1972 at BCP to support research and development activities in pharmaceutical and allied disciplines. Service to society always played an important part in Shri Amrut Mody's life. In recognition of his services Shri Amrut Mody was awarded the Padmabhushan in 1972 by the President of India.



The aims and objectives of the Amrut Mody Research Fund in addition to those mentioned above are:

- To sponsor doctoral and advanced research in pharmaceutical and allied sciences in the form of scholarships and give grants to the faculty to support the research work of scholars of the BCP.
- To provide/support grants for purchase and maintenance of equipments, books and journals and for creation of such other research facilities to foster research and a research environment in the BCP.
- To promote and encourage scholarly activities of the faculty and scholars of the BCP by providing grants for writing scientific books, monographs, review articles, etc.
- To provide partial travel grants/registration fees to attend and present research findings of the faculty and doctoral students of the BCP at international conferences/seminars, etc once in three years.
- To hold seminars, symposia, conferences and exhibitions for promoting research in pharmaceutical and allied sciences in BCP.
- To arrange lectures or lecture series by inviting eminent scientists and professionals from academia and industry from time to time during each academic year. Amrut Mody Research Fund shall support the honorarium, local travel and such other expenses for the conduct of such activities.
- To carry out all such activities as are incidental or conducive to the attainment of the above objectives or any one of them.

The Amrut Mody Research Fund Distinguished Researcher Award was conferred to Dr. M.S. Nagarsenkar in 2012 and Dr. M. N. Saraf in 2015.

At the occasion of the concluding ceremony of the Centennial Birth Anniversary of Padmabhushan Late Shri. Amrut Vithaldas Mody, his bust was unveiled on the foundation day of BCP i.e 28th May 2015.

Some of eminent scientists and professionals from academia and industry who delivered lectures at Bombay College of Pharmacy in recent past:

- Dr. Aditya Das, Consultant at USA & Associated with Cipla
- Dr. Ajaz Hussain, Inside advance & solution LLC
- Dr. Aparna Khanna, Dean, School of Science, NMIMS
- Dr. Archana Krishnan
- Dr. Aruna Khanolkar, Team leader Qbd IPD, Cipla
- Dr. Abhijeet Date, Assistant Prof. Dept. of Pharmaceutical Sciences, The Daniel K. Inouye College of Pharmacy, USA
- Ms. Almas Sayed, PV-SME at Tata Consultancy Pvt. Ltd.
- Dr. Anil Wani, Foundation for innovation & technology transfer, IIT, Delhi
- Dr. Bettine Boltres, Product Manager Pharmaceutical Tubing SCHOTT AG, Germany
- Chris Freeman, Ametek Brookfield



- Col. Nambiar, RMR Retd.OBL Facilitator
- Dr. Daniel A. Heller, Assistant Member at Memorial Sloan - Kettering & Asst. Prof at Weill Cornell Medical College
- Dr. Dhiren Thakker, Ferguson Distinguished Professor and Associate Dean from UNC Eshelman School of Pharmacy
- Dr. Hari Sharma, University Medical Centre, Amsterdam
- Dr. Kalpana Gandhi
- Dr. Kothari
- Dr. Myke Scoggins, Sr. Principal Scientist, Micromeritics Instrument Corpn USA
- Adv. Manali Chitnis, Intellectual Property Lawyer
- Dr. M.S. Kamath, Hon. Secretary, Consumer Guidance Society of India (CGSI)
- Dr. N. R. Jagannathan, Prof. & HOD of NMR & MRI Facility, AIIMS
- Dr. Nancy Pandita, Prof. in School of Science NMIMS University
- Ms. Neha Pandit Tembe, Nutritionist, Founder, Snack-Right
- Dr. Peter Banks, Scientific Director Bio, Tek Instruments Inc.
- Dr. Prashant Karkar, NMIMS
- Dr. R.P. Iyer, Co-founder of Spring Bank Pharmaceuticals Inc, USA
- Dr. Ramaswamy Iyer, Associate Director Bristol-Meyer Squibb (USA)
- Dr. Rodney JY Ho, Prof. University of Washington
- Dr. Shubhada Chiplunkar, Director-ACTREC
- Dr. Stephen Barton, Kingston University
- Dr. Susan Thomas, NIRRH
- Sarita Singh Rajbhar, Strategic Portfolio Management, CIPLA Ltd.
- Dr. S J S Flora, Director, NIPER
- Dr. Suraj Shinde, Officer, Learning & Development Dept. Cytel Statistical Software & Services Pvt. Ltd.
- Ms. Swati Dudhale, Learning Links Foundation
- Seminar on Nutraceuticals
- Dr. T.S. Balganes, Distinguished Scientist CSIR
- Prof Prasad Bharatam, Dept of Medical Chemistry, NIPER
- Prof. G.N. Sastry
- Prof. Padma Devrajan, ICT
- Prof. Prakash Jha, Central University of Rajasthan
- Prof. Subhash Padhye, ISTR Research Labs. Former HOD of the Dept of Chem University Pune
- Seminar with Royal Society of Chemistry
- Workshop by Mr. Ramandeep Singh, Asst. Manager Technical Services Signet Chemical Corpn Pvt. Ltd.
- Dr. Shashidhar Rao, Rutgers University (USA)
- Dr. Khalid, Duquesne University
- Dr. Giannetti, Duquesne University
- Dr. Rahul Thorat, MVSc Laboratory Animal Facility
- Mr. Abhijit Trimbakkar
- Dr. Siddhivinayak Barve, Dy. Director, The Kelkar Education Trust's Scientific Research Center



The Research Society of Bombay College of Pharmacy (RSBCP):

- RSBCP is a scientific society of pharmacy and related profession established in the year 1981 with one of the mandates of promoting and strengthening the pharmacy profession through research collaborations, management & execution of such research collaborations in association with the Bombay College of Pharmacy (BCP) and its faculty members and students.
- RSBCP is recognized by Department of Scientific and Industrial Research (DSIR)

**AIMS AND OBJECTIVES OF THE RSBCP:**

- To promote, organize, sponsor, establish, conduct research and encourage advancement of scientific knowledge in pharmaceutical and allied sciences in the BCP
- To increase the quality and efficacy of research outcome and to develop innovation culture in the BCP
- To finance research projects by providing grants for research and supporting infrastructure, instruments and their maintenance
- To endow research fellowships to support and recognize outstanding contributions of individuals and encourage research scholars to pursue studies & research
- To coordinate and manage industrial research collaborations in the BCP
- To assist the teaching and non-teaching staff of the BCP to develop professional skills.

SALIENT FEATURES OF THE RSBCP:**INDUSTRIAL RESEARCH COLLABORATIONS/ PROJECTS & SERVICES**

- The RSBCP manages and effectively coordinates number of industrial research collaborations and industrial projects for pharmaceutical and related industries.
- The research projects are executed in the BCP laboratories by the faculty and their student team.
- The main benefit for industry from these academic research collaborations is the access to the research results and innovative methodologies at reduced cost. It is of mutual benefit that the companies offer industrially relevant research problems of their interest to BCP and the faculty and students of the BCP provide the methodology and expertise.
- The RSBCP also caters to industries by providing 'pay as you use' equipment or instrument usage facilities (e.g., Particle size analyzer in μm and nm range, Zeta potential determination).

List of industries for whom research projects have recently been undertaken and consultancy/ services been provided,

- Inventia Healthcare • Panacea Biotech Ltd. • Glenmark • Abbott Laboratories • Marico
- OmniActive Health Technologies • IPCA • Zytex • Enem Nostrum • Shreya Lifesciences • Cipla • GlaxoSmithKline • Ambernath Organics • Sandu Pharmaceuticals • Bristol Myers Squibb • Getz Pharma Research
- Bharat Serum and Vaccines • Evonik Degussa India
- Neon Labs • Piramal Healthcare • Bajaj Healthcare • Naprod Life Sciences • USV
- Vaidya Patankar Pharmacy



•Nerlikar Hospital •Anazeal Analyticals & Research •Gattefosse India •JMB Pharma •Famy Care •Piramal Life Science •Solumics Plantacid Herbaceuticals •Franco-Indian Pharmaceuticals •Cymbiotics Biopharma •Mank Industries •Syngene International •Lamar Group of companies •Ayurchem.

Technology Transfer:

- Technology developed through research at the BCP is made available to industries for further development and commercialization. One recent technology transfer to M/s Saife Vetmed Pvt Ltd was for a novel veterinary formulation for prevention and treatment of bovine mastitis. This technology has been developed in Bombay College of Pharmacy (BCP), in collaboration with Bombay Veterinary College (BVC), Mumbai.
- Another technology transfer to LOBA Chemie Private Ltd. has been done for the synthesis of chiral selector (as mobile phase additive) in enantiomeric separation of several Chiral Active Pharmaceutical Ingredients (APIs), by Reverse Phase High Performance Liquid Chromatography (RP-HPLC) using non-chiral columns. The chiral selector had to be imported from Sigma Aldrich. The BCP team developed a cost effective indigenous method for synthesis of the chiral selector with around 150% reduction in cost. The synthesized chiral selector showed better performance for enantiomeric separation than the commercial imported product.

Research Projects in Collaboration with Foreign Industries:

- Spring Bank Pharmaceuticals, USA for Expressions, Purification and X-ray structure determination of Plasmid RIG-1
- BASF, Germany for Assessment and development of computational methods for predicting which aminoacids in a target protein binding-site are most likely to mutate in order to generate resistance against specific crop protection agents.
- Bristol Myers Squibb Company, NJ, USA for project on design of novel delivery systems, grant received US dollars 5000/- .
- Gattefosse India on exploring role of Gelucires in bioavailability enhancement. The project included formulating tablets containing a drug from BCS class 2 and Gelucires by melt granulation, in-vitro characterisation, scale up and kinetic evaluation in healthy human volunteers. Total grant received at BCP Rs 15,00,0000/.
- Bristol Myer Squibbs, USA through BMS-Biocon -Research Centre to support Ph.D fellowship for project work related to Drug Metabolism.

Infrastructural Development:

- RSBCP provides financial support for infrastructural development necessary for research at BCP, e.g., support for purchase of instruments and accessories and development of laboratories.
- RSBCP has developed Radioimmunoassay (RIA) laboratory. The RIA laboratory has the approval of Atomic Energy Regulatory Board (AERB), Dept. Atomic Energy, Govt. of India. The activities of this laboratory is supervised by AERB authorized Radiation Safety Officers. The RIA laboratory has calibrated radiation detectors (donated by Indian Association of Nuclear Chemistry and Allied Scientists) for assay of gamma ray and beta particle emitting radioisotopes and other equipment to carry out the assays of biological analytes such as rat insulin and estradiol.
- RSBCP welcomes industry sponsorship of laboratories for renovation, upgradation and instrument purchase. Laboratories can also be named to recognize the contribution of the sponsoring industry.





The Indian Pharmaceutical Association-Maharashtra State Branch`s Dr. M. K. Rangnekar Memorial Testing Laboratory

Key personnel:

Mrs. Manjusha Pimplodkar, Senior Manager

(mkrlabs@gmail.com, mkr@bcp.edu.in)

Mrs. Anupama Phadke, Q. A. Manager (Chemical and Instrumentation)

Mrs. Swati Dahibawkar, Assistant Q. A. Manager (Microbiology Department)

About us :

Dr. M. K. Rangnekar Memorial Testing Laboratory was founded on 2nd July 1988 by The Indian Pharmaceutical Association-Maharashtra State Branch`s Bombay College of Pharmacy in the memory of Dr. M. K. Rangnekar, the first commissioner of FDA Maharashtra and past President of IPA-MSB. This is a FDA approved and NABL accredited public testing laboratory complying as per schedule GLP L-1. The Laboratory follows Good Laboratory Practices as specified by the regulatory authorities from time to time.

Infrastructure:

- Trained qualified and competent technical staff
- 21 CFR compliant software for documentation as well as efficient, reliable and accurate reporting
- Work environment to provide high degree of co-ordination
- Specialization in latest analytical techniques
- Excellent standard of service to customers
- EPABX system, CCTV cameras and biometric systems to maintain laboratory discipline, secrecy and confidentiality

Categories of Products Tested:

- Analysis of APIs, Excipients and Pharmaceutical Formulations as per IP/BP/USP/EP or In-house Standards
- Analysis of Cosmetics as per BIS or party's specifications

Services Provided:

- Analytical method development
- Analytical method validation studies
- APIs, Excipients & Finished product analysis as per pharmacopoeia or in-house specifications
- Stability studies

Analysis by using the following instruments:

- HPLC
- GC
- FTIR
- UV-Visible Spectrophotometer
- Dissolution apparatus
- Disintegration apparatus
- Potentiometric titrator
- Karl fischer apparatus for moisture content
- Brookfield's viscometer
- Liquid particulate counter
- Digital polarimeter
- Bacterial Endotoxins test
- Particle size analysis (microscopically)
- UHPLC
- HPTLC
- ICP-MS
- LCMSMS



Microbial analysis:

Sterility testing

- Microbiological assay by cup-plate, cylinder-plate and turbidometric methods
- Effectiveness of Antimicrobial Preservatives
- Microbial Enumeration Tests
- Test for specified microorganisms
- Rideal Walker Coefficient test for disinfectants
- Microbial kill rate study
- Minimum Inhibitory Concentration
- Anti microbial activity
- Water analysis



The Indian Pharmaceutical Association - Maharashtra State Branch's
BOMBAY COLLEGE OF PHARMACY



(PCI and AICTE affiliated State Government Autonomous Institute under University of Mumbai)



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Research and Training**

**National Facility for Research & Training
in Integrated Analytical Strategies for
Discovery, Development and Testing of
Drugs, Pharmaceuticals and
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Pharmaceutical Research Program**

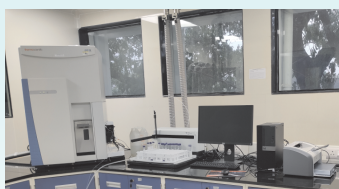
**Research grant of Rs. 5.87 crores
from Department of Science &
Technology (DST), DPRP Scheme**



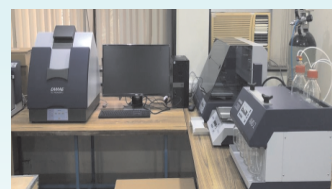
LC MS/MS



HPLC & UHPLC



ICP MS



HPTLC MS

Research Grants from AICTE, DST, UGC, CSIR, ICMR Rs. 10 crores and Rs 1 crore in Research Grants from the Industrial projects and Consultancy during last five years

Natoli - BCP Institute for Research and Industrial Pharmacy Training (NBIRIPT) is a collaborative project between Natoli Engineering, USA and Bombay College of Pharmacy. The Natoli laboratory at Bombay College of Pharmacy occupies 1100 square feet and includes four processing rooms, a testing laboratory, material storage rooms, and an equipment cleaning area.

The facility is equipped with (i) aV-shell tumble blender from Bowman and Archer, India, (ii) lab-scale granulation and fluid bed processing equipment from Diosna Dierks & Söhne GmbH, Germany (P1-6 granulator and Minilab fluid bed processor), (iii) instrumented tablet compression machines from Natoli Engineering, USA (NP-RD10A analytical press for powder characterization and NP- RD30 rotary compression machine), and (iv) a lab-scale tablet coater from O'Hara Technologies, Canada (O'Hara Labcoat BT system).



The powder and tablet testing laboratory includes instruments from Pharma Test Apparatebau AG, Germany, LabIndia Analytical Instruments Pvt. Ltd., India and Shimadzu Corporation, Japan.



The laboratory conducts demonstrations, practical experiments, hands-on training and educational activities for third year and final year B. Pharm students, including pharmaceuticals practice school sessions. Experiments, as a part of the M. Pharm coursework, and M. Pharm research projects are also carried out in the laboratory. The facility, a valuable resource for pharmaceutical and allied industries, undertakes industrial projects providing preformulation, formulation and process development support.



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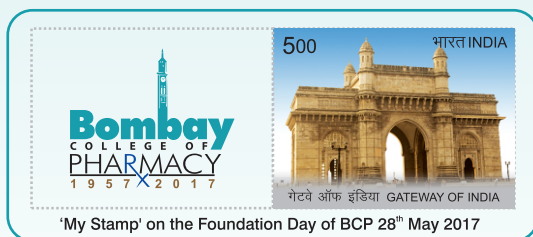
2017 | BCP Diamond Jubilee Year

2016 | The IPA MSB Platinum Jubilee Year

2014 | IPA Platinum Jubilee Year

2014 | Amrut Mody Centennial Birth Anniversary

Ventures of The IPA-MSB



BCP

Dr. Ujwala Shinde, I/C Principal

AMRF

Amrut Mody Research Fund

RSBCP

The Research Society of
Bombay College of Pharmacy



Dr. M.K. Rangnekar Memorial Testing Laboratory

Manjusha Pimplodkar, Sr. Manager



Academy for Clinical Excellence

Sr. Manager

BCP-AA (2023 - 2026)

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The Indian Pharmaceutical Association-Maharashtra State Branch (IPA-MSB)

Bombay College of Pharmacy Campus, Kalina, Santacruz (East), Mumbai - 400 098

Tel: +91 22 4783 1701 / 4783 1702

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**The Indian Pharmaceutical Association-Maharashtra State Branch's
Bombay College of Pharmacy - Autonomous**

Vision

To Provide Excellence in Transformative and Interdisciplinary Pharmacy Education for Fostering Innovation and Research towards Advancement of Sustainable Global Healthcare.

Mission

- To Provide Quality Education and Training in Pharmaceutical and Allied Sciences.
- To Engage in Collaborative Translational Research in Healthcare Sciences and Technology.
- To Commit towards Social Responsibilities through Outreach Programs, Inculcate Entrepreneurial Spirit, and Promote Lifelong Ethical Learning.

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