

## Department of Pharmaceutics:

Pharmaceutics is the branch of pharmacy that deals with all facets of the process of converting a pharmaceutical drugs into a different dosage forms like tablets, capsules, oral liquids, ointments, injectables, aerosols, transdermal patches and cosmetics like face powders, cold creams, sunscreen lotions, tooth-pastes, nail-polish, lip-sticks, eye shadows, shampoos, hair dyes etc. That can be safely and effectively used in the clinical practice. It utilizes knowledge and technology involved in small and large scale production. It covers research & development of newer delivery systems and evaluation of various dosage forms.

## Department Staff

Sr. No.	Name	Qualification	Designation
1.	Dr. Patil Manojkumar S.	M. Pharm. Ph. D.	Principal & Professor
2.	Dr. More Swapnil M.	M. Pharm. Ph. D.	Professor
3.	Mr. Jokare Shashikant P.	M. Pharm.	Asso. Professor
4.	Mr. Mali Audumbar D.	M. Pharm.	Asso. Professor
5.	Miss. Awatade Sandhyarani S.	M. Pharm.	Assistant Professor
6.	Miss. Kale Sonali R.	M. Pharm.	Assistant Professor
7.	Mr. Shinde Yogesh L.	M. Pharm.	Assistant Professor
8.	Mr. Sarak Sudhakar D.	M. Pharm.	Assistant Professor

**Scope and Highlights:**

- Development of novel drug delivery systems.
- Applications of nanotechnology in cancer therapy and targeted delivery systems.
- Design of bioequivalence protocols.
- Basic molecular biology study with special emphasis on cancer therapy.
- Development of cosmetics for modern era.
- Development of in-vitro – in-vivo correlation methods.

**List of Major Equipment**

<b>Sr. No.</b>	<b>List of Major Equipment</b>	<b>Sr. No.</b>	<b>List of Major Equipment</b>
1	Conical percolator	32	Ampule Filling & Sealing Machine
2	Prescription balance	33	Hardness Tester Labline
3	Balance torsion type	34	Digital pH Meter with Electrode Labline
4	Single pan balance 3 kg/ 0.5 gm	35	Bulk Density Apparatus Single Drum Labline
5	Dispensing balance 200 gm	36	Capsule Counter
6	Autoclave S.S. 12x12	37	Homogenizer
7	Lab.oven 18x18x18, S,S,250 C	38	Tincture Press

8	Melting point Appt.	39	Diffusion sell
9	Autoclave	40	Sterility Apparatus with Three Filter Holader S.S.
10	Incubator	41	Ball Mill
11	Water Bath Electrical 12 Hole	42	Disintegration Test Ap4p. (Single Basket)
12	Digital Colony Counter	43	Dissolution Test App. (Single Basket)
13	Electronic Balance	44	Lucus Moist Chamber
14	Medical Microscope	45	Capsule Counter
15	Medical Microscope	46	Ointment Filling Machine
16	Tablet Compression Machine	47	Bottle Washing Machine
17	Hardness Tester (Monsanto)	48	Energy Meter
18	Hardness Tester (Pfizer Type)	49	Bottle Sealing Machine
19	Tray Dryer	50	Liquid Filling Machine
20	Tablet coating machine	51	Permeability Cups
21	Friability Tester	52	Magnetic stirrer with Thermostat

22	Laminar Airflow ( Horizontal)	53	Ampule clarity testapp
23	Mechanical Stirrer	54	Tablet coating pan with blower
24	Crimping & Sealing Machine	55	Aseptic cabinet
25	Micro Pipette Variable Labline	56	Electrophoresis unit
26	Rotary Shaker Flask Analog Labline	57	Lipstick Moulds
27	Suppositery moulds	58	Hardness Tester HT 1
28	Energymeter	59	Double Cone Blender
29	Colony Counter digital	60	Digital Balance
30	Dissslution tester ( model 08L )	61	Autoclave
31	10 Station Minipress 1 Tablet Punching machine	62	Steam generator

### **Department Achievements:**

- Mr. Bhushan Patil secured first rank in Solapur University in M. Pharm.examination.
- Students of M. Pharm. had presented 09 Research papers in poster presentation session at 63<sup>rd</sup> IPC held at Bangalore.
- Students had attended various state level and national level seminars.
- Student and staff had published 5 national and 4 international papers in academic year 2012-13.

- Student had successfully completed the research projects for the award of M. Pharm.degree.
- Pharmaceutical Industries had very well cooperated in research projects considering their projects.
- The department has developed the facility to undertake the minor industrial research projects.
- Guest lectures by the eminent personalities from academic and industries were organized in the institute.
- Mr. Dheeraj Sarate got first prize in Avishkar competition in academic year 2012-2013 organised by Solapur University, Solapur.
- Mr. Onkar Bharat Doke secured first rank in Solapur University in M. Pharm. examination 2013-14.
- Participated in various extracurricular activities.
- Miss. Choure Soniya V. and Miss. Pawar Seemarani M. got first prize in Avishkar competition in academic year 2013-2014 organised by Solapur University, Solapur.
- Mr. Audumbar Mali secured first rank in Solapur University in M. Pharm. examination 2015-16.
- Dr. M. S. Patil and Dr. R. S. Bathe were awarded with Ph. D. in 2018 in Rayalseema University, Kurnool A.P. & Bhagwan University, Ajmer, Rajasthan respectively.
- Miss. Swapna Mane secured first rank in DBATU in M. Pharm. examination 2018-19.
- More than 60 research and reviews articles were published in various National and International Pharmaceutical journals.
- Various research papers were presented in National and International Conferences.
- Dr. Ritesh Suresh Bathe was granted the Patent entitled Polyherbal Gel based on CommiphoraWeightii and Sarcostemma Acidum and their Anti-inflammatory Activity (Application No. 202221003493 A) Date of Filing of Application 21/01/2022 and publication date 18/02/2022 in the A.Y.21-22.

- Dr. Ritesh Suresh Bathe, Mr. Audumbar Digambar Mali & Miss. Sunayana Mallappa Mali. published the A Practical Book of Industrial Pharmacy-I as per the PCI Regulation for B.Pharm third Sem- V by the Pritam Publication, Jalgaon ISBN No. 978-93-92159-00-8 in the A.Y.21-22.
- Mr. Audumbar Mali has received Best International Researcher Award from the International Scientist Awards on Engineering, Science and Medicine - INSO, Organized by VDGGOOD Professional Association, Viluppuram, Tamilnadu, India on 30/07/2022 in academic year 2022-2023.
- Prof. More S. M. got the Academician & Researchers Guild Award 2022 by EET CRS Research wing for Excellence in Professional Education & Industry, New Delhi on 6 Nov, 2022.
- Mr. Swapnil M. More was awarded with Ph.D.in Madhav University, Rajasthan A.Y. 2022-23.

### **Ongoing Research Activities:**

Research in the Pharmaceutics Department encompasses basic, applied, and clinical investigations in

- (i) Pharmacokinetics/ biopharmaceutics,
- (ii) Pharmaceutical analysis,
- (iii) Pharmaceutical biotechnology and drug delivery,
- (iv) Herbal medicine, Nanotechnology, targeted drug delivery; cosmetic drug delivery and novel drug delivery system. Colon targeted drug delivery system. Design and process optimization of floating drug delivery system.