

Centre for Scientific Research and Development

ANNUAL REPORT

2024-2025



PEOPLE'S UNIVERSITY, BHOPAL

Name of HOI: Prof. Dr. Subhash J. Bhore

Name of Faculty: Faculty of Science

Dean of the Faculty: Dr. Abin Mani

Name of BOS Chairperson: Dr. Richa Jain

Name of Programmes Offered in the Institution during 2024-25: B.Sc. Biotechnology, M.Sc. Biotechnology, M.Sc. Microbiology and Ph.D.

1. Program-wise sanctioned intake and admitted students' details during the session 2024-25:

S.No.	Name of Programme	Sanctioned Intake	Admitted Students
1	B. Sc Biotechnology	30	11
2	M. Sc Biotechnology	10	2
3	M. Sc Microbiology	10	2

2. Students' details (enrolled 2023-2024, SC-ST-OBC-General) and total number of students studying as on December 31, 2023):

S.No.	Name of Programme	SC	ST	OBC	GN
1	B. Sc Biotechnology	1	1	2	7
2	M. Sc Biotechnology	0	0	1	1
3	M. Sc Microbiology	0	0	2	0

3. Total number of teaching staff:

S. No.	Teaching Staff	Male	Female
1	07	04	03

4. Hostel intake capacity and occupancy:

S. No.	Intake Capacity	Male	Female
1	30	0	02

5. Library details: 58 Books

6. Programs for which the examinations have been conducted and the number of candidates who appeared for the examination in the final year:

S.No.	Name of Programme	Students appeared
1	B. Sc Biotechnology	8
2	M. Sc Biotechnology	2

3	M. Sc Microbiology	2
A	Undergraduates: Passed out during the year 2024-25	4
B	Postgraduates: Passed out during the year 2024-25	1

7. Memorandum of Understanding (MoU):

S.No.	Title of collaborative activity	Name of collaborating agency	Duration	Nature of activity
1	Students' Training Postgraduate Research/ Collaborative Research	ICAR-Indian Institute of Pulses Research, Kanpur and People's University, Bhopal	05 Year	Students Training Postgraduate Research/ Collaborative Research
2	Collaborative Research	HSC International, USA	Open/informal	Collaborative Training programmes / International Webinars on H5N1

8. Cultural events conducted:

S.No	Name of Events	Date	Brief Details of the Activity Conducted
1	Bhartiya Sanskriti Gyan Parishikha	October 24 th 2024	Bhartiya Sanskriti Gyan Parishikha (BSGP) is being conducted by People's University in collaboration with the World Gayatri Pariwar, and the students of the department actively participated in its associated activities.
2	Annual Function	April 12 th 2025	The Department of Biotechnology & Microbiology successfully organized its Annual Function "2024" to celebrate achievements, student talents, faculty contributions, and departmental progress. The event served as a platform for students to showcase their creativity. Several activities like cultural dance performances, skit play, mime act, dance performance on the Bollywood era and fashion show were carried out, where all students and faculty actively participated.
3	Fresher's Party	September 30 th 2024	The senior students of B.Sc and M.Sc Biotechnology warmly welcomed the new batch of budding biotechnologists by organizing a vibrant Fresher's Party. The event was designed to make the freshers feel comfortable, introduce them to campus life, and initiate friendly bonding with seniors. The Miss Fresher and Mr Freshers titles were given to the best performances.
4	Farewell Program	June 5 th 2025	The B.Sc and M.Sc Biotechnology students of CSRD came together to organize a heartfelt farewell program

			to bid goodbye to their seniors, marking the end of an academic journey and the beginning of a new chapter in life. The event was filled with emotions, memories, laughter, and gratitude.
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9. Sports events conducted:

S.No.	Name of Sports Events	Date	Brief Details of the Activity Conducted
1	Cricket Match	April 9 th 2025	All the students and faculty of the department participated in the cricket match. The winning team was awarded a trophy during the Annual Function.
2	Fulki Race	April 9 th 2025	All the students of the department participated in the Fulki Race. The winning team was awarded a trophy.
3	Dodge Ball Competition	April 9 th 2025	All the students of the department participated in the dodgeball competition. The winning team was awarded a trophy.

10. National Cadet Corps (NCC) Activities, Awards and Achievements

S.No	Name of NCC Camp	Date and Place	Name of Students
1	1 st CATC camp	May13 th -22 nd 2024 DMS School, Shyamla Hills, Bhopal	Prashansha Choudhary, B Sc 4 th Sem
2	2 nd CATC (IBC)	May 27 th - June 5 th 2024 Narmadapuram	<u>Achievements:</u> *She was awarded for Rifle loading and unloading in 1 st CATC camp *She has participated in the RDC National Camp in 2025
3	3 rd CATC	June 20 th -29 th 2024 Vidisha	
4	4 th CATC (Inter battalion)	July 12 th -21 st 2024 Bhopal	
5	5 th TSC (Inter-group competition)	July 22 nd – 31 st 2024 Raipur (Chhattisgarh)	
6	CATC	May 27 th 2024 Narmadapuram, MP	
7	CATC	June 20 th 2024, MP	<u>Achievements:</u> * Alpha grade in B certificate * 1st prize in inter battalion volleyball competition (13 MP Narmadapuram)
8	Air Sq. CATC	July 12 th 2024, MP	
9	IGC	July 22 th 2024, Raipur	

			* Highest marks in Health & hygiene (Bhopal Group)
10	National Camp Representation “Advance Leadership Camp”	July 10 th 2024 Rourkela , Odhisha	Rishi Nirwan, B.Sc. 6 th Sem <u>Achievements:</u> *Silver medal at the advanced leadership camp in Extempore speech competition on July 13 th 2024 *Organized NCC group level anchoring on NCC Day on November 21 st 2024, at Shaurya Shamrk

11. Significant events conducted

S.No.	Name of Events	Date of Events	Brief Details of Activity Conducted
1	Sawachhata Hi Seva 2024	20 th September 2024	All the students and faculty together organized a one-day drive to clean classrooms, laboratories, corridors, gardens, common areas, and the university campus and took a pledge on Sawachhata Hi Seva in order to remain committed towards cleanliness and devote time to it.

12. Research Activities

A. Research Papers and Review Published:

1. Majumdar M, Arya R, Sahu SP, Tiwari A and Kim JJ (2025) Assessment of Genetic Diversity by Morphological, Biochemical, and Molecular Markers in *Gloriosa superba* Ecotypes Collected from Different Agro-Climatic Zones in India. Horticulturae, 11, 723. <https://doi.org/10.3390/horticulturae11070723> Impact Factor: 3.2
2. Katu Y M, Jain R., A Theoretical review and molecular docking study of *Sphaeranthus amaranthoides*. International Journal of Pharmaceutical Quality Assurance. 2024, 15(1): 1-5 (SJR, UGC)
3. Rajput D, Mani A and Majumdar M., Phytochemical and Antimicrobial Assessment of Ethanolic and Aqueous Extracts from *Musa acuminata* Peels. IOSR Journal of Pharmacy and Biological Sciences. 20(3): p ISSN: 2319-7676
4. Pathak A, Jain R., Excellent antimicrobial and antibiofilm effect of herbal extracts on plaque colonizers and caries inhabitants: an *invitro* study. Journal of Scientific & Industrial Research. 2024, 83: 511-516 Impact Factor:0.8

5. Poorna Harika V, Jain R., Biomarker landscape of mycosis on mucromycosis. International Journal of Pharmaceutical Sciences and Research. 2024, 15(8):2210-21. UGC Care
6. Khare A, Jain R. L- Arginase: an enzyme of therapeutic and biomedical importance. SCOPE. 2024, 14 (1): 1212-1230.
7. Goswami, Savarna¹; Narang, Anu¹; Singh, Santosh K.¹; Nim, Samriddhi²; Sinhmar, Khushboo²; Jain, R. Analysis of Different Irrigant Activation Methods on Elimination of Intra-Root Canal Enterococcus Faecalis with Sodium Hypochlorite: An In vitro Study. Journal of Pharmacy and Bioallied Sciences 17(1):p S558-S560, May 2025. | DOI: 10.4103/jpbs.jpbs_249_25 Impact Factor:0.7

Book Chapter

8. Agnihotri T.G., **Jain R.**, Naga V.R., Pratiksha J., Gomte, S.S., Jain A. Protein and peptide delivery through chitin, chitosan, and starch. In. Peptide and Protein Drug Delivery Using Polysaccharides. Jain A. and Malik S. (eds), Elsevier, 2024 Jan pp 169-196.

C. Dissertation Guided

M.Sc. Dissertations

1. Bioactive potential of Tridax procumbens extract and its nanoparticles by Ms Khushi Mishra, Department of Biotechnology & Microbiology, CSRD, People's University, Bhopal (2024) Supervisor: Dr. Richa Jain
2. Isolation of Thermophilic Amylase-Producing Bacteria from Hot Spring (Anhoni), by Priyanshi Sharma, Department of Microbiology, Pagya Sagar College, Pachore (2025). Supervisor: Dr. Abin Mani
3. Anti –Bacterial Activity of Butea – Monosperma and Syzygium Cumini Against Clinical Bacterial Isolates by Ms Sandhya Yadav, Department of Microbiology, Pagya Sagar College, Pachore (2025). Supervisor: Dr. Abin Mani
4. Investigation of Trichoderma Species for Control of Phytopathogenic Fungi and Their Mechanism of Action by Mr. Ritesh Lodhi, Department of Microbiology, Pagya Sagar College, Pachore (2025). Supervisor: Dr. Abin Mani
5. Isolation of Fungi From Oil Seeds for Production of Hydrolytic Enzymes by Ms. Neha Khan, Department of Microbiology, Safia College (2025). Supervisor: Dr. Richa Jain
6. Study of Antimicrobial Properties of Fermented Fenugreek Seeds by Ms. Madiha Khan, Department of Microbiology, Safia College (2025). Supervisor: Dr. Richa Jain

B.Sc. Projects (Final Year Projects)

1. Study of Microplastic Leakage and Biofilm Formation on PETG Tooth Aligners by Ms. Aditi Kaushal, CSRD (2025), Supervisor: Dr. Richa Jain
2. Study bioactive potential of the combination of Triphala and Trikatu extract by Ms. Prashika Sharma, CSRD (2025), Supervisor: Dr. Richa Jain

3. Antimicrobial property of *Rosa indica* by Mohammed Faizan Sheikh, CSRD (2025), Supervisor: Dr. Richa Jain
4. Isolation of amylase-producing bacteria from soil by Ms. Suyashi Gupta, CSRD (2025), Supervisor: Dr. Abin Mani
5. Morphological and Biochemical Characterization of *Lathyrus sativus* L. genotypes for Yield and β -ODAP content by Ms. Manisha Sahu, CSRD (2025). Supervisor: Dr. Moumita Majumdar
6. Antibacterial activity of *Moringa oliefera* flower by Mr. Rishikesh Gupta, CSRD (2025). Supervisor: Dr. Prabhat Kumar Gupta.
7. Nucleotide Sequence Of *Elaeis Olefira* Metallothionein-like Protein (MET) encoding cDNA & 3-Dimensional structure prediction of the deduced protein by Mr. Rishi Nirwan, CSRD (2025). Supervisor: Dr. Shubhash J Bhore.
8. Evaluation of the antimicrobial property of *Anethum graveolence*. L (dill leaf) by Ms. Aarfa Siddique, CSRD (2025). Supervisor: Dr. Abin Mani.

Number of Internship/ Training: 12

PDA: 7

PCDS: 4

PCMS: 1

Amity University, Chhattisgarh: 05

D. Ongoing Project

S.No.	Title of Project	Funding Agency	Principal Investigator	Co- Investigator
1	A Community Intervention Feasibility Study for Risk Reduction of Anaemia and Malnutrition among Women, Adolescents and Children of Rural Settings through Integrated Food Fortification. Project (2020-3745) (Duration till May 2025).	Indian Council of Medical Research	Dr R. Gumashta	Dr Richa Jain, Dr Anil Kapoor, Dr Anju Kapoor

13. Seminars/ Conferences attended:

S.No.	Title of Seminar/ Webinar/ Conference/ Workshop attended by Teacher	Name of Host Institution/University	Attended by	Date
1	Senior Scientist award for oral presentation in an International Conference, PRISM 2025	BIRAC E-YUVA Centre and Department of Biotechnology, Career College, Bhopal	Dr. Richa Jain	February 12 th – 13 th 2025

2	Attended International Conference, PRISM 2025	BIRAC E-YUVA Centre and Department of Biotechnology, Career College, Bhopal	Dr. Prabhat Mishra	February 12 th – 13 th 2025
3	Attended FDP on " Modern Characterization Techniques For Molecular Materials "	Malviya Mission Teacher Training Centre CS2- IISER Bhopal	Dr. Abin Mani	February 17 th - 22 nd 2025
4	Attended FDP on "Modern Characterization Techniques For Molecular Materials "	Malviya Mission Teacher Training Centre CS2- IISER Bhopal	Dr. Shikha Jain	February 17 th - 22 nd 2025
5	Attended FDP on "Modern Characterization Techniques For Molecular Materials "	Malviya Mission Teacher Training Centre CS2- IISER Bhopal	Dr. Moumita Majumdar	February 17 th - 22 nd 2025
6	Attended an online workshop on “Biomufacturing of Monoclonal Antibodies”	Webinar Series on Biofoundry and the Initiative of the Department of Biotechnology, New Delhi.	Dr. Moumita Majumdar	February 11 th 2025

14. Workshops conducted

S. No.	Title of Workshop	Date	Coordinator/Resource Person	No. of Participants
1	Laboratory Biorisk Management Implementation and Needs of Institutions	September 27, 2024	Prof. Subhash J Bhore	35
2	Laboratory Biorisk Assessment	October 4, 2024	Prof. Subhash J Bhore	35
3	Laboratory Biorisk Mitigation and Performance Audit	October 11, 2024	Prof. Subhash J Bhore	35
4	Tools and Techniques in Molecular Biology	March 25 -28, 2025	Ph.D. Scholars from IISER, Bhopal	25
5	Computational Biology Workshop: Nucleic Acid and Protein Sequences Analysis	May 9 &10, 2025	Prof. Subhash J Bhore	41
6	Planning for Workshop on Employability and Career	May 16 th &	Mr. George Paul Placement Cell	25

	Readiness	17 th 2025	People's University	
7	Workshop on Scientific Writing Skills for Success	June 12 th - 14 th , 2025	Prof. Subhash J Bhore	30

15. Webinars & Conferences Conducted

S. No.	Title of Webinar/Conference	Date	Coordinator	No. of Registered Participants
1	<u>International Webinar Series</u> H5N1 360°: Connecting Global Expertise with Indian Professionals Webinar Series Webinar and Dialogue Session on H5N1: Current Status and Global Context	February 28 th 2025	Prof. Subhash J Bhore	345
2	Webinar and Dialogue Session on H5N1: Biosecurity Implementation for the Indian Context	March 12 th 2025	Prof. Subhash J Bhore	161
3	Webinar and Dialogue Session on <i>H5N1</i> : Vaccine Strategy and Distribution Note: Due to cybersecurity breach, program was aborted.	March 26 th 2025	Prof. Subhash J Bhore	141
4	Webinar and Dialogue Session on <i>H5N1</i> : One Health Approach for Indian Conditions	April 9 th 2025	Prof. Subhash J Bhore	151
5	Webinar and Dialogue Session on H5N1 360°: H5N1 Global Expert Panel: Analysis of Indian Case Studies with Experts from the USA, Jordan, and India	April 23 th 2025	Prof. Subhash J Bhore	95
6	Webinar and Dialogue Session on H5N1 360°: H5N1: Building India's Future Preparedness	May 14 th 2025	Prof. Subhash J Bhore	97

Some snaps of the program are as follows:



Workshop on Scientific Writing Skills for Success



Planning for Workshop on Employability and Career Readiness



Computational Biology Workshop: Nucleic Acid and Protein Sequences Analysis



Workshop on “Tools and Techniques in Molecular Biology”



Workshop on “Laboratory Biorisk Management Implementation and Needs of Institutions”



Workshop on “Laboratory Biorisk Assessment”

16. Guest lectures conducted

S.No	Name of Teacher	Title of Lectures	Name of Host Institution/University	Date (DD/MM/YYYY)
1	Dr. Preeti Chandurkar	Orientation programme for aspiring Entrepreneurs on “Overview of the BIRAC E-YUVA”	Chief Coordinator, BIRAC E-YUVA Centre, Career College, Bhopal	March 21 st 2025

17. Webinars organized by students (“For students, By students” initiative of CSRD)

S. No.	Title of Webinar/Conference	Date	Organizing Committee Members	No. of Participants
1	Biotechnological Approaches for	May 17 th 2025	M.Sc. 2nd Year Ms. Akansha Lodhi. Ms.Priti Kushwah	101

	Enhancing Saffron Production through high density DH cultivation		B.Sc. 3rd Year Mr. Rishi Nirwan, Ms. Prashika Sharma Ms. Aditi Kaushal Ms. Suyashi Gupta	
2	Towards Transformative Environmental Futures: People, Planet, and Purpose	June 5 th 2025	B.Sc. 3rd Year Mr. Rishikesh Gupta Md. Faizan Sheikh Ms. Manisha Sahu Ms. Aarfa Siddiqui B.Sc. 2nd Year Ms. Muskan Chandrol B.Sc. 1st Year Ms. Shaista Hashmi	91
3	Biotechnology for a Sustainable Future: Innovations in Bioplastic Production	June 20 th 2025	Ms. Priyanshi Sharma Ms. Sandhya Yadav Ms. Umra Jaan Mr. Ritesh Loddi Ms. Neha Khan Md. Arshan	57
4	Biotechnology and Synthetic Biology in the Biosecurity Era: Opportunities, Risks, and Safeguards	July 12 th 2025	Ms. Vanshika Trivedi Ms. Alisha Aslam Mr. Nityansh Patel Ms. Arya Vyas Ms. Paridhi Sharma Ms. Rehema Khan	77
5	From Lab to Public: Navigating the Communication Landscape of Biotechnology Innovations	July 28 th 2025	Mr. Ashwin Indoria Ms. Pratyaksha Bhattacharjee Ms. Diya Mary George Mr. Abhishek Kumar Ms. Prashansa Choudhary Ms. Madhvi Raghuwanshi	44

18. Co-Curricular Activities conducted

Please see the following page



Fresher's Party



Winners of Saron ka Sartaj



Fresher's Party



Sawachha Bharat Pledge & Shramdan



Annual Function



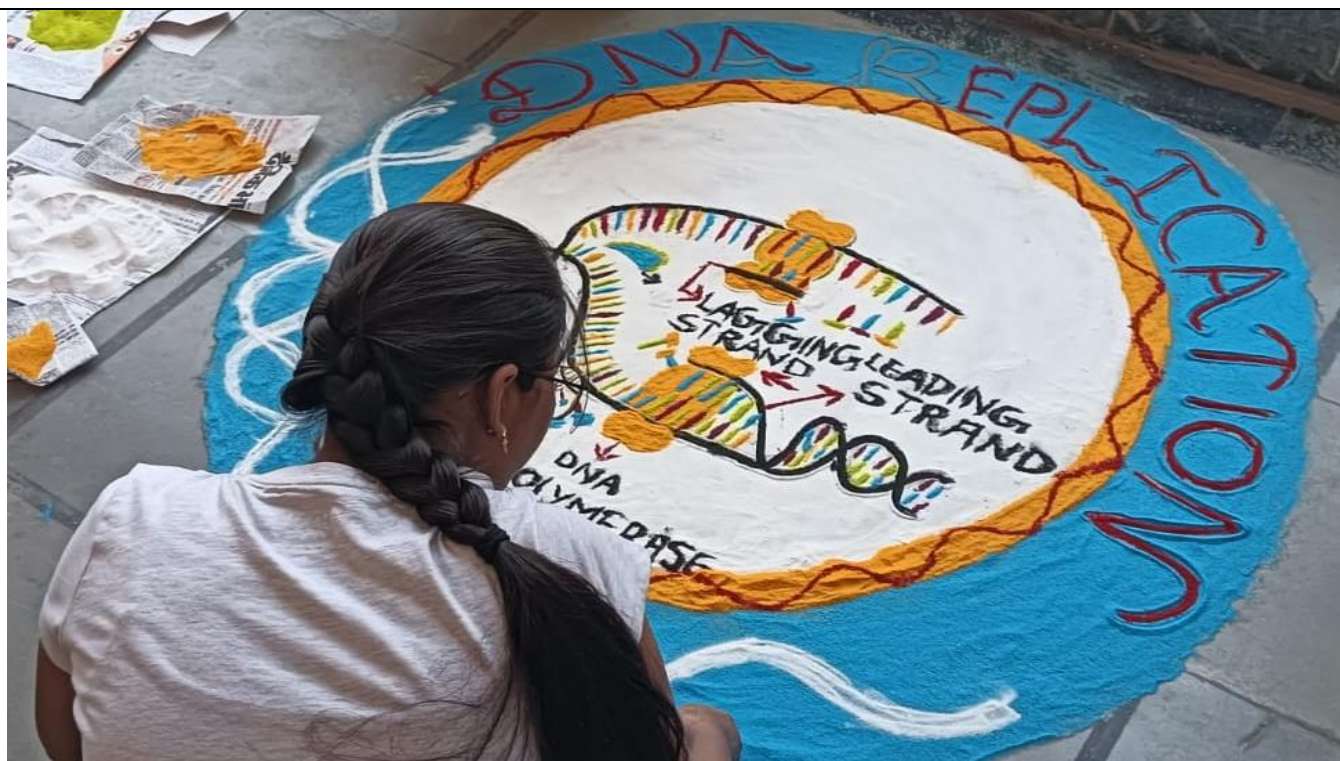
Farewell Program



Sports Day



Rangoli Competition



Rangoli Competition

19. Celebration of various days

- **World Environment Day** (June 5th 2025)

Students' webinar “Towards Transformative Environmental Features: People, Planet and Purpose

20. Awards, Achievements

S.No.	Name of Student	Title of work	Date of Award	Awarding Institution
1	Ms. Shaista Hashmi, Ms. Anushka Uikey, Chehak Soni, Tanu Tripathi B.Sc. 1 st Year	2nd Prize in the Suro Ke Sartaaj 2.0 program organized by People's University.	June 18 th 2025	Music Club, People's University, Bhopal
2	Ms. Shaiasta Hashmi B.Sc. 1 st Year	Secured 1 st Prize in Bhartiya Sanskriti Gyan Parikshya	October 24 th 2024	Akhil Vishvya Gayatri Parivar, Shantikunj, Haridwar
3	Ms. Prashika Sharma B.Sc. 3 rd Year	Awarded with 2 nd prize as “Rising Star” in the student category for poster presentation at the 10 th International Conference “PRISM”	February 13 th 2025	Career College, Bhopal

4	Ms. Anushka Uikey B.Sc. 1 st Year	Player of the Match in the Cricket Match of Sports Day	April 9 th 2025	CSRD, People's University
5	1 st Prize: Ms. Prashika Sharma (B.Sc. 3 rd Year) 2 nd Prize: Suyashi Gupta (B.Sc. 3 rd Year) 3 rd Prize: Tanu Tripathi (B.Sc. 1 st Year)	Online competition poster	September 20 th -30 th 2024	CSRD, People's University
6	1 st Prize: Ms. Manisha Sahu (B.Sc. 3 rd Year) Ms. Vidya Patle (B.Sc. 2 nd Year)	Rangoli Competition	April 9 th 2025	CSRD, People's University
7	1 st Prize: Ms. Pratyakshya Bhattacharya (B.Sc. 2 nd Year)	Classical Dance in the Annual Function	April 12 th 2025	CSRD, People's University
8	1 st Prize: Ms Diya Mary George (B.Sc. 2 nd Year)	Ramp Walk in the Annual Function	12 th April 2025	CSRD, People's University