

DEPARTMENT PROFILE

(Biotechnology Department)

1. About the Department

The department was established in the year 1997 and from its inception this department is engaged in the productive research and is trying hard to translate the scientific knowledge into useful products for human welfare. The only strategy on which department is working is the development of advanced technology and products for their use in field of agriculture, energy and pharmacy sector and generating trained human resource which will work for the welfare of the society.

The department also housed Bioinformatics centre, one of the Sub-DIC under BTIS Network, funded by Department of Biotechnology, Govt. of India, New Delhi, started in 2002-2003. Major objectives of the centre are to provide the computational facility and basic training in Bioinformatics to students, scholars and faculties in the fields of life sciences. Research areas- Bioactive compounds, Bioenergy, Biocontrol agents, Biofertilizers, System Biology and Computational Biology. Contributory department in DBT funded IPLS, B.U., Bhopal. Well qualified and research oriented faculty, NET/GATE oriented teaching, State of the art equipped laboratories, Well furnished and updated library, Facility for dissertation/training available, Students got qualified in national level exams like NET, GATE and INSPIRE Fellowship and MPPSC exams. It is the only research centre for Biotechnology for the research students. Project are completed : (National) - National Medicinal Plant Board, New Delhi, MPCST, Bhopal, Women Science Scheme, DST, New Delhi, Women Science Scheme, DST, New Delhi, Women Science Scheme, DST, New Delhi, CSIR New Delhi, MPCST, Bhopal, NASI, Allahabad, Barkatullah University, Bhopal ; (International) - Swiss Development Corporation & Department of Biotechnology & Indo-German by DBT, New Delhi

The aim of the department is to make the students theoretically and practically more competent towards the applied aspects of biotechnology.

2. Courses Name

- a. Under Graduate – N.A.
- b. Post Graduate- (**M.Sc. Biotechnology**)- 2 Year- Seat-20
- c. M. Phil- N.A.
- d. Ph.D. -(**Biotechnology**)

3. Faculty

- a. Name: **Dr. Ragini Gothalwal**
- b. Designation: Professor
- c. E mail ID: ragini_gothalwal@yahoo.com
- d. Phone no. 0755-2517133, Mobile (9826184675)
- e. Field of Specialization: Environmental Biotechnology. Microbial Physiology and Biochemistry. Environmental microbial toxicology. Exploration of cyanobacterial diversity. Protein Engineering and Cynonanoparticles for therapeutic use.

Guest Faculty

1. Dr. J. S. Parihar- Retd. Professor
2. Dr. Pallav Kaushik
3. Dr. Richa Shrivastava

4. Staff

S.N.	Name	Designation	E-mail D	Phone No.
	Biotechnology Staff			
1	Mohd. Shamim Ansari	Technical Assistant	shamimbpl2008@rediffmail.com	9425370236
2	Mrs. Sushma Singh	Assistant Grade-2	NA	8770900844
3	Mr. Deepchand Lohare	Carpenter	NA	9589564739
4	Mr. Phool	Peon	phoolsinghthakur340@gmail.com	9617693474

	Singh Thakur			
5	Mr. Rinku Batham	Peon	rinkubatham495@gmail.com	9343251750
6.	Mr Arun Kumar	Peon	devirosani850@gmail.com	7566401337
Bioinformatics Centre				
1.	Dr. Kishor K. Shende	Information Officer	kishorekshende@gmail.com	9993421666
2.	Dr. Durgesh	Technical Assistant	durgesh_bioinfo@rediffmail.com	9893710907
3.	Mrs. Archana Nema	Computer Professional	archupoonam98@gmail.com	9425468605
4.	Chandan Singh Bisht	Data Entry Operator	csbisht.bpl@gmail.com	9425676710

5. List of Instrument

Enclosed (Annexure-1)

6. Departmental Seminars / Activities : (From 2019 to 2025)

- **One day Seminar on Intellectual Property Rights (IPR) and Patent in Research and Technology” Dated 1st June 2019** at Department of Biotechnology and Bioinformatics Center, Barkatullah University, Bhopal, Total 161 students participated.



- Dept of Biotechnology conducted a workshop as per the guidelines of higher education, Ministry of MP on “Syllabus Improvisation for UG program of Biotechnology, Microbiology, Biochemistry on 10th Dec 2019 and Home Science on 13th Dec 2019.
- NAAC Criteria-IV Workshop was conducted by the department dated 5 October, 2019 Co-ordinated by Prof. Ragini Gothwal.
- 3 days online National Workshop on Structural Bioinformatics “In-silico Techniques in Drug Designing” jointly organized by Department of Biotechnology (Bioinformatics Center), Barkatullah University, Bhopal and (Prof. Ashish Acharya) Corporate Institute of Pharmacy, Bhopal during 27 - 29 May, 2020. (Workshop was attended by 973 participants) Convener- **Prof. Ragini Gothwal**, organizing secretary - **Dr. Kishor Shende**, organizing Member- **Dr Durgesh Gupta, Chandan Singh Bisht & Dr Yogita Basene**.



- National Webinar on "Advances in Diagnosis and Control of Microbial Outbreaks" jointly organized by Department of Pharmacy and Department of Biotechnology, Barkatullah University, Bhopal on 21 May, 2020, Convener- **Prof. Ragini Gothwal**, Organizing secretary - **Dr. Jitendra Malviya**, organizing Member- **Dr. Kishor Shende, Dr Durgesh Gupta, Dr Yogita Basene**.



- Department of Biotechnology organized a webinar on Combating COVID 19: Biotechnological Perspective, 2020, jointly organized by Bioinformatics Centre (Sub-DIC), Department of Biotechnology, Barkatullah University Bhopal & Corporate Institute of Pharmacy, Bhopal.

- 5 days Hands-on-Training titled as, “Dimension of Bioinformatics for Life Science” for the UG and PG students and Research Scholars of Life Sciences streams. The workshop is proposed to be organized during 9 -13 October, 2023.



- One day workshop on research innovations & IPR: strategies & challenges was successfully organized by the Department of Biotechnology Barkatullah University on 20th of June , 2023.



- Mushroom Cultivation Training Programme dated 2-12-2024 to 20-12-2024



- Department of Biotechnology & Bioinformatics Center, Barkatullah University, Bhopal M.P. organized hands on training on “Animal Cell Culture Techniques” during 23 – 26 September, 2024



Department of Biotechnology & Bioinformatics Center, Barkatullah University, Bhopal M.P. organized Hands on Training In Basic Bionformatics during 17 – 27 December, 2024.



Mushroom Cultivation Training Programme dated 5-6 February, 2025



Department of Biotechnology & Bioinformatics Center, Barkatullah University, Bhopal M.P. organized Hands on Training in Basics of Bioinformatics dated 24 February to 01 March, 2025



Department of Biotechnology and Bioinformatics Centre (SUB-DIC), Barkatullah University, Bhopal is organizing workshop on “Metabolic prediction and its testing by using ML based Bioinformatics Tools” held on 22-29 December, 2025 under PM-USHA Scheme.



7. Contact us:

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List of Instruments

S.No.	Description
1.	Autoclave – sterilizer (vertical) LTPH-28 ,size =600mm x 450mm Autoclave, jyoti scientific, vertical, size = 500 x 300 Autoclave vertical jyoti scientific. Portable autoclave,300 x 300 Autoclave (vertical) – “jyoti” electrical heated double walled -15 pound pressure heavy
2.	Oven, hot air (sterilizer Memmest) LTPH-30 ,size =600 x 900 x 450
3.	Bacteriological incubator, LTPH-31, memmest type, 600 x 900 x 450
4.	Laminar air flow, horizontal, LTPH-48, working area=6' x 2'x 2'
5.	Single pan electrical balance
6.	pH meter with electrodes
7.	Humidifier ss body cat no. (571) humidity
8.	Magnetic stirrer, 1 litre capacity
9.	Lab centrifuge, Remi
10.	Single pan electronic balance
11.	Vortex shaker, jyoti scientific Test tube
13.	Gel documentation (labmate) set
14.	High speed cooling centrifuge
15.	Borsil distillation unit,quartzBorsil electronic relay unit
16.	BOD incubator, hicon, vertical automatic
17.	Incubator shaker H1con
18.	Heating mantle H1con
19.	Laminar air flow
20.	Tarson dancing shaker 3040
21.	Microprocessor based colorimeter, systronics
22.	Mini quartz distiller with quartz condenser, model: MQD-3P-QXL, CODE: WS-Q-20135-Q
23.	LCGC Axis German Top Leading Electronic Balance
24.	Beckman coulter spectrophotometer, Model: DU730, part No.: A-23616
254.	Orbital ledt (D) table top oriental laboratory – sigenic
26.	Mini dual electrophoresis dual control gel unit (Vertical)
27.	electrophoresis horizontal
28.	Rotary shaker
29.	Vortex mixer
30.	Digital pH meter
31.	Leica microscope model DM- 1000 china origin immersion oil
32.	Leica microscope model EZ 4D china origin immersion oil
33.	Micro centrifuge – tarson spinwin
34.	Heating mental – energy regulator
35.	Magnetic stirrer spinot
36.	Vacuum tubing – tarson plastic ware
37.	Water bath – thermostatic –labtech –double walled

38.	BOD incubator (vertical) – heating automatic, digital temp. controller with stabilizer – 870 x 570 x 560
39.	jeio tech –water bath suction pump CW-10 G
40.	Rotary evaporator (digital) – heidolph-laboratory
41.	Biophotometre set – 6131000012, 100-230 V,50-60 Hz, eppendorf and standard rotor – eppendorf
42.	Centrifuge ependof 5415
43.	Rocker vaccum pump- tarson
44.	Elga water purification MPCST
45.	Electronic balance
46.	Elect roplrosis
47.	Sonicator frontline modle No. fs-280
48.	UV Transillominator AC (6W x 4 tubes)
49.	CO 2 incubator Galaxy co 1705 + HT
50.	Genei TM digital P5
51.	Gel Doc
52.	Fermentor model fermac – 320 5 litre ferm syst.
53.	Cryo can for nitrogen
54.	Water bath (Jyoti Scientific)
55.	Hot airoven (Jyoti Scientific)
56.	Soxlet extraction (Jyoti Scientific)
57.	Digital portable tester TDS pen type
58.	Water bath Rectangular double walled SS Thermostatic controlled model JSI507 HSN 8419
59.	Incubator Bacteriological double walled SS Model JSI519 HSN8414
60.	pH meter with standard access Model JSI1000 HSN9027
61.	Student Microscope Compound with optic eye piece jsi 651
62.	Double Distillation unit all glass Horizontal Water distillation GLWS40DG
63.	Rotary Shaker 300*300*300 vertical speed supp with cord
64.	Digital multifunctional Copier HSN code 8443
65.	Micro controller based pH system
66.	SOXLET EXTRACTION UNIT 3
67.	AUTOCLAVE VERTICAL 10X18 2KW GASKET
68.	PORTABLE AUTOCLAVE 21 LITRE SS
69.	SHIMADZU UV VIS SPECTROPHOTOMETRE UV 1900i WITH LAB SOLUTION
70.	FIRST TOUCH LCD INFRARED OPTICAL 3840X2160 INTERACTIVE PANEL AND ACCESSORIES