



Bharati Vidyapeeth

Dental College and Hospital, Navi Mumbai



RESEARCH FACILITIES AVAILABLE AT BHARATI VIDYAPEETH DENTAL COLLEGE AND HOSPITAL NAVI MUMBAI, AND IRSHA



Working towards bringing excellence in Innovative Research!

RESEARCH LABORATORY, BHARATI VIDYAPEETH DENTAL COLLEGE AND HOSPITAL NAVI MUMBAI



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OUR AIM

- Want students/ staff to enjoy and appreciate research, explore it to widen their horizon for diagnostic and innovative implications.
- Encourage excitement and curiosity in students/ staff so that they ask questions that feed their desire for exploration about medicine and applied sciences.
- Identify aspiring, interested students and sow the seeds of innovative research from an initial stage.
- Enable our Research Laboratory to provide a wide array of facilities to execute research.



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OUR WORKINGS

- We at the Research Laboratory, BVPDCHNM believe in supporting the research ideas of each and every individual in the campus.
- Be it a undergraduate student, a postgraduate student or a staff we welcome ideas from all.
- Once the ideas are thoroughly examined, we look into whether it is feasible to execute it in our setup.
- While the Scientific Research Committee and the Ethical Committee checks the significance of the research work and ethical grounds respectively.
- We try to find out the armamaterium required for the work and its availability.
- If not available in campus, we look whether our sister colleges can support the same.



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OUR WORKINGS

- Here comes the role of Bharati's Engineering College, Business Management College, Pharmacy College and others.
- One such institution is INTERACTIVE RESEARCH SCHOOL FOR HEALTH AFFAIRS (IRSHA), PUNE
- We try to check if the proposed research work can be carried out in collaboration with any of the above.
- Despite all these, if the research work demands facilities available at some other institution, we try and work it out with them to make the project work.



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OUR WORKINGS

- Another way is to go through the list of facilities available with us at an initial stage.
- Then when one goes through the literature to screen potential research topics, the facilities available can be kept in mind.
- This would make things much easier to execute.
- However, one should not restrict their innovative thinking and research mind based on the availability of facilities.
- Facilities can always be accessed across the country if there is the zeal to do so.
- Example- IIT Mumbai has a SAIF (Sophisticated Analytical Instrument Facility) section, wherein we can have access Electron Microscopy and many more high-end instruments.



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LIST OF EQUIPMENTS AND FACILITIES FOR RESEARCH WORK

RESEARCH LABORATORY, BHARATI VIDYAPEETH DENTAL COLLEGE NAVI MUMBAI

SN	EQUIPMENTS/ FACILITY	USES
1	SEMI AUTOMATIC BIOCHEMISTRY ANALYSER	Measure Metabolites Present in Blood and Urine
2	HAEMATOLOGY ANALYZER	Complete Blood Count
3	BINOCULAR MICROSCOPE	Observe Stained and Unstained Samples
4	PH METER	Measure PH
5	INCUBATOR	Incubate Samples From 5 To 100 Degree Celsius
6	CENTRIFUGE MACHINE	Separate Samples Based on Density
7	ELECTRONIC WEIGHING MACHINE	Weigh Samples/Product
8	GLUCOMETER	Measure Blood Sugar Level
9	COLORIMETER	Analysis of Fluids
10	WATER BATH	Heating of Samples
11	LOVIBOND COMPARATOR	Measures Depth of Color to Analyze Fluids
12	AUTOCLAVE	Moist Heat Sterilization
13	HOT AIR OVEN	Dry Heat Sterilization
14	MCINTOSH FIELDS ANAEROBIC JAR	Culture Anaerobic Organisms
15	ANAEROBIC CANDLE JAR	Culture Microaerophilic organisms and Facultative anaerobes



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1964-2014
celebrating

Golden Jubilee
BHARATI VIDYAPEETH
Founder Hon'ble Dr. Patangrao Kadam

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RESEARCH FACILITIES AVAILABLE





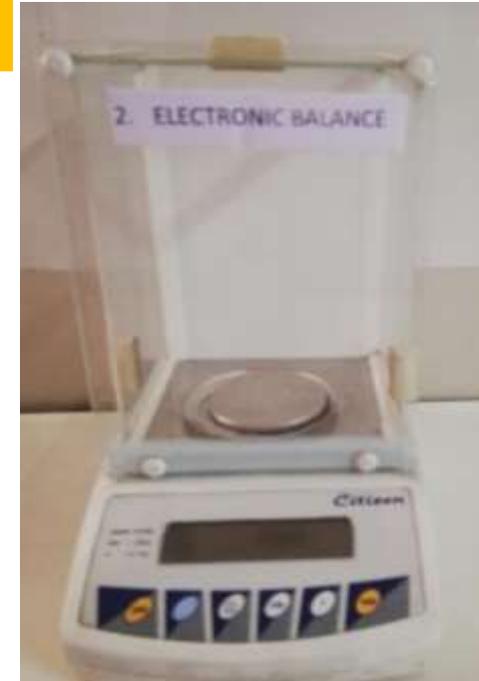
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INTERACTIVE RESEARCH SCHOOL FOR HEALTH AFFAIRS (IRSHA), PUNE

SN	EQUIPMENT / FACILITY	USES
1	GAS CHROMATOGRAPH SYSTEMS	Separating and analyzing vapourizable compounds
2	REFRIGERATED TABLE TOP CENTRIFUGE-80 & -20	For samples that need consistent temperature range
3	UV/VIS SPECTROPHOTOMETER	Measure the concentration of chemical substance
4	BALANCES	Weighing samples
5	PH METER	Check PH of samples
6	CLINICAL CENTRIFUGES	Centrifugation of samples
7	ULTRA SONIC CLEANER	Cleaning of dental and surgical instruments
8	HPLC	Identify, quantify and purify compounds in medicinal plant, synthetic drugs, food components
9	COOLING CENTRIFUGE	Centrifuge to maintain uniform temperature throughout the operation of sample
10	ICE FLAKING MACHINE	Produce ice in granular flakes
11	CELL /TISSUE CULTURE	Provide an in vitro model of the tissue in a well-defined environment which can be easily manipulated and analyzed



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SN	EQUIPMENT / FACILITY	USES
12	CO2 INCUBATORS	Maintains Optimal environment for cell growth
13	LAMINAR FLOW CABINETS	Provides particle free air on workstation
14	ELIZA PLATE READER	Measuring and identifying antibodies, nucleic acids and microorganisms
15	SPECTRO FLUROMETER	Assay of vitamin in foodstuff, hormones, drugs, cholesterol, enzymes and study protein structure
16	BOD INCUBATOR	To determine level of organic matter and nitrogen in waste water samples
17	COOLING INCUBATOR -80 & -20	Store/Keep samples at an optimum temperature
18	INCUBTOR SHAKER	Incubation and shaking of cell culture, fermentation, hybridization, biochemistry and cell tissue
19	AXIOSTAR MICROSCOPES	Microscope designed for daily microscopic analysis
20	WATER PRO RO, PRO PS INTEGRA MICRO MANIPULATOR SYSTEM	Used to produce laboratory grade water
21	INVERTED MICROSCOPE FLOURESCENCE WITH CAMERA	For live cell imaging
22	CRYO CANS	Store liquid at very low temperatures



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SN	EQUIPMENT / FACILITY	USES
MOLECULAR BIOLOGY		
23	RT-PCR	For measuring the amount of RNA
24	PCR	Detection of bacteria, viruses/ genetic disorders
25	CENTRIFUGE	Centrifugation of samples
26	SPEED VAC SYSTEM	Solvent evaporation by vacuum
27	GEL DOCUMENTATION SYSTEM	Imaging&documentation of nucleic acid/ protein
28	HYBRIDIZATION OVEN	Used for molecular assays
29	SORWALL HIGHSPEED REFRIGERATED CENTRIFUGE	Centrifuging cellular debris, micro-organisms, larger cell organelles and proteins
30	NANO DROP	Allows to quickly and easily quantify and assess purity of samples such as proteins and nucleic acids
31	LAMINAR FLOW CABINETS	Maintaining sterile airflow in workstation
32	MICROBIAL & FERMENTATION FACILITY	Used for fermentation of substances
33	STERILIZING FACILITY	Glassware/ Plastic Ware Washing, Packing and Sterilization



ONGOING PROJECTS

STAFF

Interdisciplinary projects on-

- Effect of herbal extracts on gingivitis and periodontal diseases
- Post exposure Prophylaxis
- Comparison of Sterilization methods
- Cross infection control

PG

- Effect of herbal extracts on dental pathogens
- Toothbrush used and oral commensal
- Halitosis producing bacteria

UG

- Toothbrush and bacterial count
- Water quality in dental setups
- Irrigants and Oral pathogens