



Rayat Shikshan Sanstha's
Karmaveer Bhaurao Patil College Vashi (Empowered Autonomous)
Department of Microbiology

Post Graduate Research Projects

Sr No	Academic Year	Name of the Research Project/ Title of Internship	Name of the student	Addressed Needs (Write local need)	Impact/Outcome
1.	2018-19	Production of probiotics and their application	Pratiksha Ahire	Local	Biotechnological Innovations
2.		Study on isolation and characterization of bacteria and its bioremediation activity for cadmium heavy metal	Arshi Sheikh	Local & Regional	Understanding and mitigating environmental impacts
3.		Studies on fermentation of soyabean meal and corn soyabean mix meal using bacillus, lactobacillus and aspergillus spp.	Arpita Bangar	Local, Regional, National	Public Health and Clinical Applications
4.		Comparative studies on antimicrobial and antioxidant properties of frozen and dried momordica dioica fruit extracts	Pooja Choudhary	National & Global	Human Health and Disease
5.		Development of non-dairy synbiotic yoghurt using a consortium of lactic acid bacteria fortified with prebiotic component fructo-oligosaccharides containing food material.	Mohini Deshmane	Local & Regional	Agricultural Sustainability
6.		Production of exopolysaccharide produced by pk- 1 isolated from crotonia assamica using groundnut oil cake as a substrate.	Pallavi Deshmukh	National & Global	Biotechnological Innovations
7.		To study isolation, production, optimization of vinegar fermentation from apple and its application	Aditi Jadhav	Local & Regional	Biotechnological Innovations
8.		Extraction of phytochemicals from	Shabana Khan	National & Global	Human Health and Disease

		eucalyptus plant leaves and study of it's antimicrobial and antibiofilm activity against clinical pathogens from urine sample			
9.		Comparative study of antimicrobial activity of carica papaya leaf and peel extract against clinical pathogens	Krutika Manjrekar	National & Global	Human Health and Disease
10.		Biopreservation of food using bacteriocin produced by lactic acid bacteria (lab)	Rutuja Maskar	Local & Regional	Biotechnological Innovations
11.		Green synthesis and characterization of silver nanoparticle from plant extract and its application in water purification and food industry	Vibha Mishra	National & Global	Biotechnological Innovations
12.		Polyhydroxy butyrate using different isolates obtained from soil samples and its application as a food packaging material	Tafheem Momin	National & Global	Biotechnological Innovations
13.		Use of fungal cultures for hydrolysis of rice straw to be used for ethanol production	Poonam Shinde	Local & Regional	Biotechnological Innovations
14.		To study isolation, identification, characterization, and application of riboflavin from <i>Ashbya Gossypii</i> isolated from mangrove soil.	Kiran Surve	Local & Regional	Agricultural Sustainability
15.		Isolation of cellulose degrading bacteria from different sources and determination of their waste degrading potential	Monita Sutar	National & Global	Understanding and mitigating environmental impacts
16.		Production of industrial bio-degreasing formulation using biosurfactant and a consortium of hydrocarbon degrading isolates	Shruti Vighne	National & Global	Biotechnological Innovations
17.		To determine the effect of biofertilizer produce by azotobacter species on yield of wheat and rice	Komal Yewale	Local & Regional	Agricultural Sustainability
18.		Comparative study of antimicrobial and antioxidant activity of tagetes patula (french/brown marigold) and tagetes erecta (african/orange-yellow marigold) on pathogen	Namrata Bhingardeve	National & Global	Human Health and Disease

19.	2019-20	Production, Extraction, Optimization and characterization of siderophore by soil isolates and its application	Pradnya Mukadam	Local & Regional	Agricultural Sustainability
20.		Production, Extraction, Characterization and Optimization of Exopolysaccharide produced by isolate from <i>Alysicarpus glumaceus</i> and <i>Crotalaria spectabilis</i> plant.	Shruti More	Local & Regional	Biotechnological Innovations
21.		Bioremediation and Decolourisation of Textiles Dyes by using Bacteria Isolated from Textile Industrial Effluent	Sweety Tandel	Local & Regional	Understanding and mitigating environmental impacts
22.		Extraction of Ergosterol from Mycelium of Higher Fungi	Parbonee Dey		Biotechnological Innovations
23.		Isolation of keratinolytic bacteria and its applications	Ravikumar Yadav	Local & Regional	Biotechnological Innovations
24.		Isolation, identification and optimization of chromium resistant bacteria for bioremediation of chromium from synthetic waste	Rahul Wadekar	Local, Regional & National	Understanding and mitigating environmental impacts
25.		Preparation of bio-lipbalm using essential oil as preservative and bacterial pigment (prodigiosin) as a natural tint	Shilpa Adhikari	Local & Regional	Biotechnological Innovations
26.		Isolation, Identification and Optimization of Mercury Resistant Bacteria for Bioremediation of Mercury from Synthetic Electronic Waste.	Krutika Khatate	Local & Regional, & National	Understanding and mitigating environmental impacts
27.		Probiotic product development: Isolation, Optimization and characterization	Mayur Atpadkar	Local & Regional	Human Health and Disease
28.		Isolation and identification of melanin producing bacteria; and characterization of bacterial melanin, for study of its applications.	Vidhyesh Karnjavkar	Local & Regional	Biotechnological Innovations
29.	Antibacterial Activity of <i>Plectranthus amboinicus</i> against Multiple Drug Resistant Clinical isolates from urinary tract.	Shinu Yadav	Local	Human Health and Disease	
30.	Screening of heavy metal resistant plant growth promoting bacteria from metalliferous soil.	Priyanka Pandey	Local & Regional	Understanding and mitigating environmental impacts	

31.		Extraction, Optimization and production of bioplastic from agricultural waste	Dhanashri Patil	Local & Regional	Understanding and mitigating environmental impacts
32.		Enhancement of Antibacterial and Antibiofilm potential of silver nanoparticles against MDR pathogens- Amoxicillin conjugated Carica papaya leaf extract mediated synthesis	Pooja Vengurlekar	Global	Human Health and Disease
33.		Study of antimicrobial and phytochemical properties of casuarina equisetifolia fruit extract, synthesis and characterization of nanoparticles	Ajinkya Pawar	Local	Human Health and Disease
34.		Lab sale Sirka production, it's Microbial and Chemical analysis.	Anit Maurya	Local	Biotechnological Innovations
35.		To formulate an bacterial consortium to degrade flower waste.	Jayashri Pawar	Local	Understanding and mitigating environmental impacts
36.		Enrichment, Isolation, Screening and Characterization of Pectinase Producing Bacteria and its Applications	Kajal Phadtare	Local	Understanding and mitigating environmental impacts
37.		Effect of a Novel Bacterial Bio-fertilizer on growth of Grape plant (Crimson seedless)	Sonia Bhekre	Local & Regional	Agricultural Sustainability
38.		The Isolation, Identification production, Optimization of tannase enzyme producing bacteria and it's application.	Komal Chavan	Local	Biotechnological Innovations
39.	2021-2022	Comparative Study Of Cashew Nuts And Shells And Green Synthesis Of Silver Nanoparticles From Cashew Leaves And Their Applications	Chikhalekar Payal Deepak	Local & Regional	Biotechnological Innovations
40.		The Isolation, Identification, Production, Purification of Nattokinase Producing Microorganisms From Various Soil Samples And Soybeans	Dumbre Mayuri Manohar	Local	Biotechnological Innovations
41.		Isolation Of Tannase Producers.	Khose Ashlesha Bhausahab	Local	Biotechnological Innovations
42.		Microbiological Studies For Conversion Of Lignocellulosic Waste Into Biofertilizers.	Asmita Kashinath Gaikwad	Local & Regional	Understanding and mitigating environmental impacts
43.		Study Of Bioactive Properties Of Cheilocostus Speciosus Plant And Its Application	Gaikwad Sandhya Dattu	Local	Biotechnological Innovations
44.		Isolation And Characterization Of Phytase	Chavan Narayan	Local & Regional	Biotechnological Innovations

		Producing <i>Lactobacillus</i> Species Isolated From Idli Batter And Their Application In Soy Milk Fermentation	Anil		
45.		Biodegradation And Decolourisation Of Textile Industry Dyes By Microorganisms	Bhusara Mamta Vishwanath Jayashri	Local & Regional	Understanding and mitigating environmental impacts
46.		Study On Siderophore Production By Prominent Isolates And Its Application	Patil Hrutuja Gopinath	Local & Regional	Agricultural Sustainability
47.		Microbial Production Of Lipase From Oil-Contaminated Soil And Its Application In Biodegradation Of Oil Spills	Yadav Ritika Ramjeet	Local & Regional	Biotechnological Innovations
48.		Isolation And Characterization Of Bioluminescent Organism From Marine Fish (Rani Masa)	Pawar Pratiksha Laxman Laxmi	Local & Regional	Biotechnological Innovations
49.		Evaluation Of Antimicrobial And Antioxidant Activity Of Tomato Juice Patch As Dental Bleaching With Hpmc-Pvp Combination Polymer Base Against Dental Plaque-Causing Microorganisms	Jadhav Pritam Anandrao Meena	National	Human Health and Disease
50.		To Check Efficiency Of Isolates For Nickel bioremediation	Kharavtekar Siddhi Kishor	Local	Understanding and mitigating environmental impacts
51.		Biosynthesis Of Silver Nanoparticles And Evaluation Of Its Antimicrobial And Antioxidants Activity	Vedpathak Anuja Girish	Local	Biotechnological Innovations
52.		Study On Production Of Biocellulose Using <i>Azotobacter</i> Spp. And <i>Rhizobium</i> Spp	Marathe Shruti Nitin	Local	Biotechnological Innovations
53.		Study Of Protease Producing Microorganisms And Their Application	Sakpal Anushka Ashok	Local	Biotechnological Innovations
54.		Newer Approach Of Biopolymer Extracted From Microbes.	Gavali Deepali Kailas Vaishali	Local	Biotechnological Innovations
55.		Isolation, Characterisation Of Keratinase Producing Organism And Its Application In Production Of Biofertilizers	Dhiwar Rutuja Saumitrasen Neeta	Local	Agricultural Sustainability
56.		A Study Of Phosphate Solubilizing Bacteria & Fungi From Mangrove Rhizosphere Soil	Mahadik Shruti Sanjay Swati	Local & Regional	Agricultural Sustainability
57.		Study Of Lead Resistant Bacteria From Industrial Effluent Treatment Plant And Their Potential Applications In	Tripathi Arpana Rajeshmani Sheela	Regional & National	Understanding and mitigating environmental impacts

		Bioremediation			
58.	2022-2023	Isolation screening identification of bio emulsifier producing organism from different soil sample and it's bio-surfactant and antibiotics resistance	Shreya Bhoir	Regional	Human Health and Disease
59.		Comparison Of Anti-Dandruff Activity Of Synthetic Shampoos And Crude Plant Extracts On Dandruff Causing Isolates.	Shivani Dalvi	Regional	Biotechnological Innovations
60.		Isolation and Characterisation of Phosphate Solubilizing Bacteria from different soil samples	Snehal Durgude	Local & Regional	Agricultural Sustainability
61.		Investigation and identification of indigenous microalgae from freshwater sample	Sakshi Gadhari	Local	Understanding and mitigating environmental impacts
62.		Production of biocellulose using natural isolates and it's applications	Rucha U. Ghodeswar	Local	Agricultural Sustainability
63.		Isolation and Identification of Antibiotic Resistant Bacteria from Clinical Samples	Sayali Jadhav	National	Human Health and Disease
64.		Extension of Shelf Life of MSC by blend of sodium acetate and diacetate	Akash S Jangam	Local	Biotechnological Innovations
65.		Anti-acne activity and phytochemical analysis of bark and leaves extract of <i>Casuarina equisetifolia</i>	Sejal Kadukar	Local	Human Health and Disease
66.		Analysis of ventilator pipe in hospital to check biofilm formation by fungi and bacteria	Piya Khandagle	National	Human Health and Disease
67.		Isolation and identification of dye degrading microorganisms from dye effluent	Nishigandha Magar	Local & Regional	Understanding and mitigating environmental impacts
68.		Characterization and Remediation of cadmium resistant bacteria and check its potential	Vinita. R. More	Local & Regional	Understanding and mitigating environmental impacts
69.		Production of Biofuel from Fruit wastes	Samiya Pathan	National	Understanding and mitigating environmental impacts
70.		Production of Xanthan gum by using Xanthomonas spp. from banana peels as source of carbon	Dhanshree Pawar	Local & Regional	Understanding and mitigating environmental impacts
71.		Biosynthesis and characterization of gold and silver nanoparticles using bacteria	Saloni Mohan Pawar	Local & Regional	Biotechnological Innovations

		isolated from gold and silver smelting process			
72.		To study the microbial consortium for sewage water treatment	Raksha Phatkare	Local	Understanding and mitigating environmental impacts
73.		Isolation of exopolysaccharide from microbial sources and it's applications	Chaitali Raut	Local	Biotechnological Innovations
74.		To study the antimicrobial activity of prodigiosin produced from <i>Serratia spp.</i> and effect of oil seeds on its production.	Sharmila Shelar	Global	Human Health and Disease
75.		identification of bioactive compounds in leaf Extract of the	Rhucha Sheramkar	Local	Biotechnological Innovations
76.		<i>Tinospora cardifolia</i> Antimicrobial property and Action Against Various Infectious Microorganisms and study of its antimicrobial Properties.	Vaishnavi Sudke	Local	Human Health and Disease
77.		To study pectinolytic organisms using spoiled vegetables to optimize its production and minimize resource costs.	Samidha Surve	Regional	Understanding and mitigating environmental impacts
78.		Comparative study of bacteriocin and spirulina on fruits as biopreservative	Bhavana Thakare	Regional	Biotechnological Innovations
79.		Exploration of microbial diversity in cow dung	Darshana Warke	Local	Human Health and Disease
80.		Development of non-dairy synbiotic yoghurt milk, fortified with prebiotic oligosaccharide	Sundar Yadav	Local	Human Health and Disease