

BIOGRAPHICAL SKETCH

1. GENERAL PARTICULARS



Name: Dr. Bharat Bajarang Ballal

Qualification: M.Sc. (Microbiology), Ph.D., SET (Life Sciences), PGDHE, DIPR, MS-CIT

Designation: Principal, Shikshan Mandal's, Mahila Mahavidyalaya Karad

Date of Birth: 15th August 1969

| 2. EDUCATIONAL DETAILS (GRADUATION ONWARDS) | | | | |
|--|--|---|-------------|---|
| S. No. | Institution | Degree Awarded | Year | Field of Study |
| 1. | Shivaji University Kolhapur | B.Sc. Microbiology | 1991 | Microbiology |
| 2. | Shivaji University Kolhapur | M.Sc. Microbiology | 1993 | Microbiology |
| 3. | IGNOU (Indira Gandhi National Open University) | P.G.D.H.E. (Post Graduate Diploma in Higher Education) | 2002 | Higher Education |
| 4. | University of Pune | SET Exam. | 2006 | Life Sciences |
| 5. | New Law College, Pune | D.I.P.R. (Diploma in Intellectual Property Rights) | 2009 | Intellectual Property |
| 6. | Maharashtra State Board of Technical Education | MS-CIT | 2008 | Information Technology |
| 7. | Bharati Vidyapeeth (Deemed to be University),Pune, India | Ph.D. (Microbiology) | 2017 | Microbiology, Immunology and Virology |

RESEARCH / FELLOWSHIP / RESEARCH TRAINING PROGRAM:

| Sr. No. | Research | Title of Work / Thesis | University / Institute |
|---------|-----------------------------------|---|---|
| 1. | Ph.D. | Studies on potential biological immunomodulators in HIV infected individuals. | Bharati Vidyapeeth (Deemed to be University) |
| 2. | Research Training Program/Project | Study of Immunomodulating and antiviral properties of plants | UGC New Delhi |
| 3. | Ongoing | Development of Gamma Prototype of Biological Waste Incinerator | Biotechnology Industry Research Assistance Council (BIRAC), New Delhi |

EXPERIENCE:

| Sr. No. | Designation | Name of Employer | Salary with Grade Pay/ Academic Level | Date of | | Experience in years |
|---------|---------------------|--|---------------------------------------|------------|------------|---------------------|
| | | | | Joining | leaving | |
| 1 | Lecturer | P.S.G.V.P.Mandal's Arts, Science and Commerce College, Shahada, Dist Dhule. (North Maharashtra University, Jalgaon) | Basic pay 2275/- | 06.09.1993 | 31.07.1995 | 02 Years |
| 2 | Associate Professor | Yashwantrao Mohite College of Arts, Science and Commerce, Pune-411038 (University of Pune and Bharati Vidyapeeth Deemed to be | 13A | 01.08.1995 | 03.08.2021 | 26 Years |

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| | | University,Pune,India) | | | | |
| 3 | Associate Professor | Dr. Patangrao Kadam Mahavidyalay Sangali (Shivaji University, Kolhapur) | 13A | 04.08.2021 | 18.06.2025 | 3.10 Years |
| 4 | Principal | Shikshan Mandal's, Mahila Mahavidyalaya, Karad | | 19.06.2025 | In position | |
| Total Experience as on 6 th July 2025 | | | | | | 31 years and 10 Months |

ORIENTATION / REFRESHER / SHORT TERM COURSE COMPLETED:

Summary:

| Title | Total no. |
|-------------------------------------|------------------|
| Refresher courses | 04 |
| Orientation course | 01 |
| Faculty Development Programs | 06 |

Details:

| Sr. No. | Course | Duration | University / Institute |
|----------------|--|--------------------------|-------------------------------|
| 1 | Completed refresher course in 'Environmental Science (Microbiology.) conducted by UNIVERSITY OF PUNE in the period of 1-12-2000 to 28-12-2000 & honored by outstanding performance (0-grade) | 1-12-2000 to 28-12-2000 | UNIVERSITY OF PUNE |
| 2 | Completed refresher course in 'Life-Science' | 23-08-2007 to 12-09-2007 | Goa University |

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| | organized by Goa University in the period of 23-08-2007 to 12-09-2007 and honoured by “A” Grade. | | |
| 3 | Completed P.G.D.H.E. course (Post Graduate Diploma in Higher Education) of I.G.N.O.U. (Indira Gandhi National Open University) equivalent to one orientation course and two refresher courses. | <p>Completed the course in December 2002.</p> <p>As per U.G.C. notification D.O. No. F.1-6/90 (ASC), September 1993, para b), the P.G.D.H.E. course of I.G.N.O.U. is equivalent to one orientation course and two refresher courses.</p> <p>As per Maharashtra State Government resolutions No. NGC-1298 /(4619)/UNI-4, dt. 11th December 1999, Page No. (8), Clause No. (13)- ii), a lecturer will be eligible for placement in a senior scale through a procedure of selection if she/he has - --“engaged in other appropriate continuing education programs of comparable quality as may be specified or approved by the University Grants Commission”.</p> <p>Thus P.G.D.H.E. of I.G.N.O.U., is appropriate education program of comparable quality as per U.G.C. notification D.O. No. F-1-6/90 (ASC), September 1993, Parab)</p> | I.G.N.O.U. (Indira Gandhi National Open University). |
| 4 | Completed Faculty Development Program (2 weeks)on ‘Managing online classes and co-creating MOOCS’, April 20 to May 6, 2020 (everyday 6 pm to 2 am flexible), organized by Ramanujan College, | April 20 to May 6, 2020 | Organized by Ramanujan College, University of Delhi. |

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| | University of Delhi. | | |
| 5 | Completed Faculty Development Program (2 weeks) on 'MOOCS', May 18 To June 03, 2020 organized by Ramanujan College, University of Delhi. | May 18 to June 03, 2020 | Organized by Ramanujan College, University of Delhi. |
| 6 | Completed Faculty Development Program (1 week) on 'NAAC Assessment and Accreditation', 21 st May to 25 th May 2020, (9.00 am to 2.00 pm) organized by MSP Mandal's Shri Shivaji College, Parbhani. | 21 st May to 25 th May 2020 | Organized by MSP Mandal's Shri Shivaji College, Parbhani. |
| 7 | Completed Faculty Development Program (2 weeks) on 'MOOCS', May 22 to June 30, 2020 (everyday 6 pm to 2 am flexible), organized by Ramanujan College, University of Delhi. | May 22 to June 30, 2020 | Organized by Ramanujan College, University of Delhi. |
| 8 | Completed 02 weeks faculty Development Program on 'Research Methodology' from October 01 to October 15, 2020 organized by Ramanujan College University of Delhi. | October 01 to October 15, 2020 | Organized by Ramanujan College University of Delhi. |
| 9 | Completed 02 weeks faculty Development Program on 'Research Methodology' from October 01 to October 15, 2020 organized by Ramanujan College University of Delhi. | October 29 to November 05, 2020 | Organized by Ramanujan College University of Delhi. |

PUBLICATIONS:

RESEARCH PAPERS IN PEER-REVIEWED OR UGC LISTED JOURNALS: (44)

| Sr. No. | Title with page No. | Journal | ISSN / ISBN No. |
|------------|--|---|--|
| 1 | Deficiency of 25 –OH Cholecalciferol, an explored factor aggregating chronic arthritits in Chikungunya and search of its therapeutic potential, | Asian Journal of Multidisciplinary Studies, Volume I, Issue I, August 2013 | ISBN 2321-8819 (Online), 2328-7186 |
| 2 | Availing CBWTF to Science Colleges, a need of time. Pg. No.27-28, | Asian Journal of Multidisciplinary Studies, Volume 3 Issue 3, March 2015, 2348-7186 | ISBN 2321-8819 (Online), 2328-7186 |
| 3 | Rifamycin induced fatal ventricular tachycardia, a case study, Pg. No.106-107 | ‘Asian Journal Of Multidisciplinary Studies’, 5(3), | ISBN 2321-8819(Online), 2328-7186 (Print), 03.03.2017. |
| 4 | Immunomodulatory activities of blended formulation of <i>Chlorophytum borivilianum</i> , <i>Withania somnifera</i> , <i>Wagatia spicata Dalz</i> , <i>Picrorrhiza kurroa</i> and <i>Spilanthes paniculata</i> , Pg. No. 26-28 | Asian Journal of Multidisciplinary Studies, 3(11), , 2015. | ISBN 2321-8819 |
| 5 | "Subway foods: A mean to dangerous food borne and nosocomial infections", Pg. No. 46-49. | Research & Reviews: Journal of Food Science & Technology, December 2013, | - |
| 6 | Effect of blended formulations of selected biological immunomodulators on ‘Absolute CD ₄ count in HIV 1 infected individuals following Phase II human clinical trials., | International Journal of current research, July 2017, H index 6, ICV 72.25 | ISSN: 0975-833X,9(07), 54902-54905, |
| 7 | Evaluation of selected medicinal plants for their potential antimicrobial activities against ESKAPE pathogens and the study of P-Glycoprotein related antibiosis, an indirect | International Journal of Recent Scientific research, Volume 9, Issue 11(A), pp 29461- | ISBN 0976-3031, |

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| | <p>approach to assess efflux mechanism.</p> <p>pp 29461-29466</p> | <p>29466, Impact factor 7.383, UGC approved list number : 46629, ICV: 81.25, H Index: 14, NAAS Score: 3.65, I₁₀ Index: 37</p> | |
| 8 | <p><i>Acinetobacter baumannii</i>: A contributing factor for progression of ‘Interstitial Lung Disease’, a case study.</p> <p>Pg. No. 161-164</p> | <p>International Journal of Advanced Research in Biological sciences’, ISBN 2348-8069, 4(2), 161-164, 01-03-2017, Impact Factor 6.433, Index Copernicus- 83.08</p> | <p>ISBN 2348-8069,</p> |
| 9 | <p>‘Neutrophil Adhesion Test’ as a tool for assessment of immunomodulatory activities of blended formulation of <i>Chlorophytum borivilianum</i>, <i>Withania somnifera</i>, <i>Wagatia spicata</i> Dalz, <i>Picrorrhiza kurroa</i> and <i>Spilanthes paniculata</i>,</p> <p>Pg.No.97-201</p> | <p>International Journal of Advanced Research in Biological Sciences, Issue No. 2(11),2015 (ISBN 2348-8069), IF 6.433. Index Copernicus 83.08</p> | <p>(ISBN 2348-8069),</p> |
| 10 | <p>‘Study of absolute CD₄ count in the HIV-1 (c-strain) infected individuals following therapy of non toxic herbal extracts of <i>Phyllanthus reticulatus</i>, <i>Tinospora cordifolia</i> and two other novel drugs’.</p> <p>Pg. No. 18,</p> | <p>Advanced biotech, Vol-III, Issue 7, January 2005,</p> | <p>ISSN-0973-0109.</p> |
| 11 | <p>The study of Thrombocyte count in the HIV-1 (c-strain) infected individual following therapy of non-toxic, herbal extracts of <i>Phyllanthus reticulatus</i>, <i>Tinospora cordifolia</i> and two other novel drugs, Page No. 19,</p> | <p>Advanced biotech, Vol-III, Issue 7, January 2005,</p> | <p>ISSN-0973-0109.</p> |
| 12 | <p>‘Study of absolute CD₄ count and plasma homocysteine in the HIV-1 (c-strain) infected individuals following therapy of Non-toxic extracts of <i>Phyllanthus reticulatus</i>, <i>Tinospora cordifolia</i> and two other novel drugs’</p> <p>Page No. -143</p> | <p>-American society for microbiology (ASM) final programme book for 104th General meeting (May 23-27, 2004) and full length research paper was published online on the web site</p> | <p>ISBN-1-555-81-313-5</p> |

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| | | www.asm.org | |
| 13 | ‘Invention of herbal drug against HIV infection /AIDS’. Pg. No. 855 | The Patent Office, Journal dt. 13/01/2006. | - |
| 14 | ‘Study of immunomodulating, biochemical, and antiviral properties of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> , <i>Chlorophytum borivilinum</i> , <i>Wagatia spicata</i> Dalz and Two other patented novel herbs in the HIV-1 (c-strain) infected individuals’, Pg. No. 87 | Bharati Vidyapeeth University Research Journal Vol-V, Number-1, April 2007, | - |
| 15 | Invention of immunomodulating agent against HIV infection/AIDS’, Pg. No. 19980 | Issue no. 46/2011, The Patent Office Journal, dt.18/11/2011. | - |
| 16 | ‘Invention of improved process for obtaining <i>Piper longum</i> derived product having distinct properties with respect to enhancement of spermatogenesis process. Pg.No.28440 | 1632/MUM/2013, The Patent Office Journal, Issue 11/2015 dt. 13/03/2015, Issue 11/2015 dt. 13/03/2015, pg.no.28440 | - |
| 17 | ‘Invention of <i>Picrorrhiza kurroa</i> derived product having distinct properties with respect to augmentation of spermatogenesis process’ 1633/MUM/2013, Pg.No.28443, | The Patent Office Journal, Issue 11/2015 dt. 13/03/2015, Issue 11/2015 dt. 13/03/2015, pg.no.28443 | - |
| 18 | ‘Novel product obtained from <i>Chlorophytum borivilianum</i> , <i>Piper longum</i> , <i>Picrorrhiza kurroa</i> , by using innovative steps and the unique blending process for enhancement of spermatogenesis process’,1634/MUM/2013, Pg.No.28444 | The Patent Office Journal, Issue 11/2015 dt. 13/03/2015, pg.no.28444, Issue 11/2015 dt. 13/03/2015, | - |

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| 19 | Invention of <i>Chlorophytum borivilianum</i> derived product having distinct properties with respect to enhancement of spermatogenesis process. 1635/MUM/2013, Pg .No.33581 | The Patent Office Journal, ,Issue 19/2015 dt. 8/05/2015, | - |
| 20 | Invention of mast cell stabilizing properties of <i>Piper longum, Aloe vera, Cynodon dactylin and Cymbopogon citratus</i> Application No. 1803/MUM/2015,6/5/2015, Pg.No.35070 | The Patent Office Journal ,Issue 21/2015 dt. 22/05/2015, | - |
| 21 | Study of the effect of biological immunomodulators on percent Neutrophil count in Albino Mice | Proceeding of National Conference on 'Recent Trends in Physical, Chemical and Biosciences' (RTPCB-2016), 16 th Dec. 2016. | ISBN: 978-93-81249-24-6, BPP-18,122, |
| 22 | Multiunit aseptic chamber, | The Patent Office Journal, volume number 40/2018, dt. 5/10/2018, pp 38809 | - |
| 23 | Cylindrical sanitary pad incinerator, Pg. No. 47051 | The Patent Office Journal, volume number 49/2018, dt. 7/12/2018, | - |
| 24 | Chromatography column with perforated gel slot, | The Patent Office Journal, volume number-17/2019 dt. 26/04/2019. | - |
| 25 | Hospital bed with adjustable inbuilt commode Pg.No. 40477 | The Patent Office Journal, volume number-35/2019 dt. 30/08/2019 | - |
| 26 | Incinerator for biological waste, Pg. No. 39583 | The Patent Office Journal, volume number 35/2019, dt. 30/08/2019 | - |
| 27 | Incinerator for biological waste | Journal of 'International Bureau of the World Intellectual Property Organization (WIPO) | - |

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| | | International publication number WO 2021/028729A1 | |
| 28 | Innoculating loop for microbial isolation Pg. No. 59534 | The Patent Office Journal, volume number 47/2020, dt. 20/11/2020 | - |
| 29 | Study of Air Microflora in the vicinity of Common Biomedical Waste Facility Center, Govandi, Mumbai and its impact on community health. | Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences. Jan-Feb 2022,8(1),pp 90-95 | ISSN 2454-6348,DOI:10.26479/2022.0801.07 |
| 30 | Isolation of potential pathogens from used and shared cigarettes: A public health concern. | Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences. May-June 2022,8(3),pp 61-65 | ISSN 2454-6348,DOI:10.26479/2022.0803.06 |
| 31 | Impact intensity reducing mobile phone body Pg. No. 65324 | The Patent Office Journal, volume number 41/2022, dt. 14/10/2022 | - |
| 30 | A Device for investigating cell movement Pg. No. 2937 | The Patent Office Journal, volume number 02/2023, dt. 13/01/2023 | - |
| 31 | Isolation and Identification of potential pathogens from used and unused panty liners: A comparative study | Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences. July-August 2023,9(4),pp 113-117 | ISSN 2454-6348, DOI:10.26479/2023.0904.05 |
| 32 | A device for investigating cell movement | Journal of 'International Bureau of the World Intellectual Property Organization (WIPO) International publication number WO 2024/127090 A1, Dt. 20 June 2024 | - |

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| 33 | Isolation of potential pathogens from packed talcum powder | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 43 | ISBN Number 978-93-342-2128-2 |
| 34 | Preparation of modified coriander seed agar for isolation of fungi | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 46 | ISBN Number 978-93-342-2128-2 |
| 35 | Isolation of potential pathogens from used and unused menstrual cups | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No.57 | ISBN Number 978-93-342-2128-2 |
| 36 | Isolation of potential pathogens from used and unused panty liners. | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No.63 | ISBN Number 978-93-342-2128-2 |
| 37 | Isolation of potential pathogens from unused and packed male contraceptives. | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January | ISBN Number 978-93-342-2128-2 |

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| | | 2025, Pg No. 65 | |
| 38 | Isolation of protease producing bacteria from meat cutting area. | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 72 | ISBN Number 978-93-342-2128-2 |
| 39 | Antibacterial activity of betel leaf extract and nanoparticles. | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 73 | ISBN Number 978-93-342-2128-2 |
| 40 | Isolation and identification of oil degrading bacteria from soil sample | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 73 | ISBN Number 978-93-342-2128-2 |
| 41 | Antibacterial activity of <i>Caesalpinia bonduc</i> leaves extract. | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 74 | ISBN Number 978-93-342-2128-2 |
| 42 | Fermentation dynamics in the production of wine from wood apple (<i>Limonia acidissima</i>) | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad | ISBN Number 978-93-342-2128-2 |

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| | | Dt. 19yh-21 st January 2025, Pg No. | |
| 43 | Isolation of potential pathogens from used and shared cigarettes. | Proceeding Publication with ISBN Number 978-93-342-2128-2 for International Conference entitled 'BIOMAKE IN INDIA-II' organized by Krishna Institute of Allied Sciences, Karad Dt. 19yh-21 st January 2025, Pg No. 88 | ISBN Number 978-93-342-2128-2 |
| 44 | Biomedical Waste Incinerator | The Patent Office Journal, volume number 11/2025, dt. 14/03/2025, pg no. 25907 | - ISBN Number 978-93-342-2128-2 |

DATABASE PUBLICATIONS: (17)

Online publications of 16S ribosomal RNA gene sequences at National Centre For Biotechnology Information (NCBI) Database, Bethesda US, European Molecular Biology Laboratory (EMBL) and DNA Database of Japan (DDBS) as follow:

| Sr. No. | Title of the Database Publication | Publication Date | Domain | Contribution of the teacher |
|---------|---|------------------|--|-----------------------------|
| 1. | <i>Bacterium</i> BVDU01-BS-MAR-313-LIP03 (NEWLY INVENTED BACTERIUM) | 17.12.2012 | www.ncbi.nlm.nih.gov/nuccore/KC130881 <u>1</u> | Principal Investigator |
| 2. | <i>Bacillus anthracis</i> strain ATCC 14578 | 17.12.2012 | www.ncbi.nlm.nih.gov/nuccore/KC119183 <u>1</u> | Principal Investigator |
| 3. | <i>Bacillus endophyticus</i> strain BVDU01-BRAS008-CON 7 | 17.12.2012 | www.ncbi.nlm.nih.gov/nuccore/KC130874 <u>1</u> | Principal Investigator |
| 4. | <i>Enterobacter</i> | 17.12.20 | www.ncbi.nlm.nih.gov/nuccore/KC130875 | Principal |

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| | <i>cloacae</i> strain BVDU01-RB- SAM-005- VEGRC01 | 12 | 1 | Investigat or |
| 5. | <i>Aeromonas hydrophila</i> strain BVDU01-BS- RAM-003- PANPO3 | 17.12.20 12 | www.ncbi.nlm.nih.gov/nuccore/KC130876 1 | Principal Investigat or |
| 6. | <i>Acinetobacter calcoaceticus</i> strain BVDU01- BA-MSR-041- PANG02 | 17.12.20 12 | www.ncbi.nlm.nih.gov/nuccore/KC130877 1 | Principal Investigat or |
| 7. | <i>Micrococcus yunnanensis</i> strain BVDU01-MB- RSA-009-CON9 | 17.12.20 12 | www.ncbi.nlm.nih.gov/nuccore/KC130878 1 | Principal Investigat or |
| 8. | <i>Pseudomonas stutzeri</i> strain BVDU01-BAR- MS 073-LIP01 | 17.12.20 12 | www.ncbi.nlm.nih.gov/nuccore/KC130879 1 | Principal Investigat or |
| 9. | <i>Bacillus pumilus</i> strain BVDU01- BM-ARS-013- LIP02 | 17.12.20 12 | www.ncbi.nlm.nih.gov/nuccore/KC130880 1 | Principal Investigat or |
| 10. | <i>Pseudomonas koreensis</i> strain SGM-BVDU-PK- VBRAS-C1/S | 08.11.20 15 | www.ncbi.nlm.nih.gov/nuccore/KR868725.1 | Principal Investigat or |
| 11. | <i>Enterobacter cloaca</i> strain BY1 | 17.12.20 12 | www.ncbi.nlm.nih.gov/nuccore/JQ766938 | Principal Investigat or |
| 12. | <i>Exiguobacterium mexicanum</i> strain BVU3 | 15.06.20 16 | www.ncbi.nlm.nih.gov/nuccore/KX170833 | Principal Investigat or |
| 13. | <i>Acinetobacter variabilis</i> strain BVU4 | 15.06.20 16 | www.ncbi.nlm.nih.gov/nuccore/KX170834 | Principal Investigat or |
| 14. | <i>Bacillus flexus</i> strain BBB-1 | 29.01.20 17 | www.ncbi.nlm.nih.gov/nuccore/KX192361 | Principal Investigat or |
| 15. | <i>Rhizobium nepotum</i> strain | 29.01.20 | www.ncbi.nlm.nih.gov/nuccore/KX192362 | Principal Investigat |

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| | BBB-2 | 17 | | or |
| 16. | <i>Citrobacter europaeus</i> Strain 97/99 (T) | 07.02.20 19 | https://www.ncbi.nlm.nih.gov/sra/?term=P RJNA506888 | Principal Investigator |
| 17. | Isolation and characterization of drug resistant pathogens from fresh meat samples collected from slaughter houses | 09.02.20 19 | SRX 5059812 NCBI DATABASE ACCESSION NUMBER | Principal Investigator |

PUBLICATIONS (OTHER THAN RESEARCH PAPERS)

BOOKS AUTHORED:

| Sr. No. | Title | Type of Book International /National / Chapter in Edited Book / Editor of Book by International / Editor of Book by National Publisher | Publisher & ISBN No. | Page No. |
|---------|--|--|--|----------------|
| 1. | Aarogyita (Savdhan! AIDS cha Vishanu Sankramanaache Maarg Badltoy....) | Edited book | -Late Rajaram Tukaram Bhoite Smruti Arogya Pratishthan | 252-256 |
| 2. | Manual for Bioassays and their Applications | National and published by Yashwantrao Mohite College | Yashwantrao Mohite College | 257-259 |
| 3. | आई नावाच गाव | Published by Chetak Books | 978-93-92823-36-7 | 96 |

OTHER PUBLICATIONS:

| Sr. No. | Name of the article | Name of the newspaper |
|---------|--|--------------------------------------|
| 1 | Marathi newspaper article | Sakal , Satara Edition dt 27/12/2006 |
| 2 | AIDS: Gairsamaj aani vaastav | Pune Lokmat dt 21/06/2007 |
| 3 | Savdhan! AIDS cha Vishanu Sankramanaache Maarg Badltoy.... | Dainik Prabhat dt 14/07/2009 |
| 4 | Now, a herbal drug to boost HIV patients' immunity | Sakal Times 07/03/2011 |

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| 5 | Files of ICU patients, a major source of infection | Sakal Times dt. 12/04/2011 |
| 6 | Pilot study finds pathogens inside state transport buses | Sakal Times dt. 30/07/2012 |
| 7 | Safe sex is at high risk | Pune Mirror dt 12/07/2013 |
| 8 | Red signals danger for lipstick lover: study | Pune Mirror dt. 29/08/2013 |
| 9 | New W.H.O. guidelines may necessitate hike in HIV drug supply | Pune Mirror dt. 06/07/2013 |
| 10 | Pune based Scientists develop incinerator for sanitary pads | Sakal Times dt. 24/12/2018 |
| 11 | Faculty.....disposal machine | The Indian Express Jan 2019 |
| 12 | Incinerator that destroys sanitary pads and pathogens | Gomantak Times dt. 05/01/2020 |
| 13 | Invention of Incinerator | Lokasatta Pune 26.01.2024 |

Creation of ICT mediated Teaching Learning pedagogy and content and development of new and innovative courses and curricula

(a) Development of Innovative pedagogy:

| Sr. No. | Method used for innovative pedagogy | Description | Class for which methodology was used |
|---------|--|--|--------------------------------------|
| 1. | Cutting Edge Pedagogy (ref. NEP guidelines for Innovative Pedagogical Approaches and Evaluation Reforms) | Participated in hands on work shop on PCR and Fermentation technology dt. Feb 25,26,27-2008 at MITCON, PUNE. | M.Sc. |
| 2. | Cutting Edge Pedagogy (ref. NEP guidelines for Innovative Pedagogical Approaches and Evaluation Reforms) | Attended and participated in CME on Molecular Diagnostics dt. Feb 6 and 7, 2010 at YASHADA PUNE. | M.Sc. |
| 3. | Flipped classroom pedagogy | Participated in online National workshop on Elsevier tools organized by Elsevier dt. April 25, 2020 | B.Sc. and M.Sc. |
| 4. | An Integrated Learning Pedagogy | Participated in live demonstration of COVID-19 Lab parameters organized by | B.Sc. and M.Sc. |

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| | | Transasia Biomedicals Ltd. Dt. May 06-2020 | |
| 5. | Art integrated learning pedagogy | Participated in IQAC Cluster guidance webinar organized by white code dt. May 08, 09, 10, 11-2020 | B.Sc. and M.Sc. |
| 6. | Cutting Edge Pedagogy | Participated in International training program on Global Food Security dt. May 28-2020, organized by Asian PGPR Society | B.Sc. and M.Sc. |
| 7. | Cutting Edge Pedagogy | Participated in two weeks program on managing online classes dt. May 18 to June 3-2020 | B.Sc. and M.Sc. |
| 8. | Cutting Edge Pedagogy | Participated in one week program on advanced pedagogical techniques dt. Oct 29- Nov 05-2020 | B.Sc. and M.Sc. |
| 9. | Project based learning pedagogy | Participated in two weeks program on research methodology dt. Oct 01-Oct 15 -2020 | B.Sc. and M.Sc. |
| 10. | Cutting Edge Pedagogy | Participated in national workshop on fine tuning research planningSCOPUS and MENDELy dt April 25-2020 | B.Sc. and M.Sc. |
| 11. | Project based learning pedagogy | Participated in hands on training work shop on science laboratory equipments and instrumentation dt. 31/08/2024 | B.Sc. and M.Sc. |
| 12. | Project based learning pedagogy | Improving Innovation and Entrepreneurship Performance pogram dt. Oct. 07-2022, organized by Venture NCL | B.Sc. and M.Sc. |
| 13. | Flipped classroom | Conducted online lecture on 'Intellectual Property Right' dt. 28/01/2020 | For the scholars of Life Sciences |
| 14. | Flipped classroom | Circulated Whatsapp notes and references | .B.Sc. II |
| 15. | Flipped classroom | Circulated Whatsapp notes and references | M.Sc.- II |

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|-----|----------------------|--|----------|
| 16. | Flipped classroom | Circulated Whatsapp notes and references | B.Sc.III |
| 17. | Kinesthetic learning | Conducted practical based project named isolation of <i>Bacillus megaterium</i> by using MALDI TOF | M.Sc.-II |
| 18. | Kinesthetic learning | Conducted practical based project named isolation of <i>Lactobacillus paraplantarum</i> by using MALDI TOF | M.Sc.-II |
| 19. | Kinesthetic learning | Conducted practical based project named isolation of <i>Acinetobacter indicus</i> by using MALDI TOF | M.Sc.-II |
| 20. | Kinesthetic learning | Conducted practical based project named isolation of <i>Bacillus flexus</i> by using MALDI TOF | M.Sc.-II |
| 21. | Kinesthetic learning | Conducted practical based project named isolation of <i>Escherichia coli</i> by using MALDI TOF | M.Sc.-II |
| 22. | Kinesthetic learning | Conducted practical based project named isolation of <i>Ascinetobacter indicus</i> by using MALDI TOF | M.Sc.-II |
| 23. | Kinesthetic learning | Conducted practical based project named isolation of <i>Staphylococcus arlettae</i> by using MALDI TOF | M.Sc.-II |
| 24. | Kinesthetic learning | Conducted practical based project named isolation of <i>Candida metapsilosis</i> by using MALDI TOF | M.Sc.-II |
| 25. | Kinesthetic learning | Conducted practical based project named isolation of <i>Klebsiella pneumoniae</i> by using MALDI TOF | M.Sc.-II |
| 26. | Kinesthetic learning | Conducted practical based project named isolation of <i>Arthrobacter tumbae</i> by using MALDI TOF | M.Sc.-II |
| 27. | Kinesthetic learning | Conducted practical based project named isolation of | M.Sc.-II |

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| | | <i>Bacillus pumilus</i> by using MALDI TOF | |
| 28. | Kinesthetic learning | Conducted practical based project named isolation of <i>Micrococcus endophyticus</i> by using MALDI TOF | M.Sc.-II |
| 29. | Kinesthetic learning | Conducted practical based project named isolation of <i>Janibacter indicus</i> by using MALDI TOF | M.Sc.-II |
| 30. | Kinesthetic learning | Conducted practical based project named isolation of <i>Exiguobacterium artemiaa</i> by using MALDI TOF | M.Sc.-II |
| 31. | Kinesthetic learning | Conducted practical based project named isolation of <i>Salmonella</i> by using MALDI TOF | M.Sc.-II |
| 32. | Kinesthetic learning | Isolation of <i>Staphylococcus haemolyticus</i> from hospital beds | M.Sc.-I |
| 33. | Kinesthetic learning | Isolation of <i>Pseudomonas stutzeri</i> from hospital beds | M.Sc.-I |
| 34. | Kinesthetic learning | Isolation of <i>Staphylococcus epidermidis</i> from hospital beds | M.Sc.-I |
| 35. | Kinesthetic learning | Isolation of <i>Pseudomonas fluorescens</i> from saline stands of the hospital | M.Sc.-I |
| 36. | Kinesthetic learning | Isolation of <i>Pseudomonas aeruginosa</i> from unused sanitary pads | M.Sc.-I |
| 37. | Kinesthetic learning | Isolation of <i>Staphylococcus saprophyticus</i> from AC VENTS OF STATE TRASPORT VEHICLES. | M.Sc.-I |
| 38. | Kinesthetic learning | Isolation of <i>Pantoea agglomerans</i> from unused and packed cosmetics. | M.Sc.-I |
| 39. | Kinesthetic learning | Isolation of <i>Acinetobacter iwoffii</i> from AC VENTS OF STATE TRASPORT VEHICLES | M.Sc.-I |
| 40. | Kinesthetic learning | Isolation of <i>Micrococcus spp.</i> | M.Sc.-I |

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|-----|---|---|---|
| | | <i>from AC VENTS OF STATE TRASPOT VEHICLES</i> | |
| 41. | Kinesthetic learning | Isolation of <i>Klebsiella aerogenes</i> from used sanitary pads, as an endeavor to explore normal flora of genital tract of females | M.Sc.-I |
| 42. | Kinesthetic learning | Isolation of <i>Enterobacter cloaca</i> from used sanitary pads, as an endeavor to explore normal flora of genital tract of females | M.Sc.-I |
| 43. | Kinesthetic learning | Isolation of <i>Cronobacter sakazakii</i> from used sanitary pads, as an endeavor to explore normal flora of genital tract of females | M.Sc.-I |
| 44. | Differential Instruction | Assesed students learning using formative assessment for University and mid semester examination | Ph.D, M.Sc, B,SC, Theory and Practicals |
| 45. | Study tour on 12 January 2019 | 63 candidates visited Dyna Biotech to learn construction and working of laboratory fermentors | M.Sc.-I, M.Sc.-II |
| 46. | Conducted campus drive on 8 th April 2019 in collaboration with Serum 'Institute of India' | 12 candidates selected through campus drive | B.Sc., M.Sc. |
| 47. | Cutting Edge Pedagogy | Participated and undergone training program under 'WORKSHOP ON NMR OPERATION AND ANALYSIS'. Dt. 18 th Oct.2019 | Ph.D., M.Sc. and B.Sc. |
| 48 | Conducted E learning program dt 1/12/2018 | Co-convener for the event | Scholars of Life Sciences |
| 49 | An Integrated Learning Pedagogy | Participated in 'Effective Research Paper Writing', the webinar organized by Career College Bhopal, Dt. 17 th May 2020 | M.Sc. |
| 50 | An Integrated Learning Pedagogy | Participated in National webinar on ' Perspectives for microbiology graduates and | B.Sc. and M.Sc. |

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|----|---------------------------------|---|-----------------|
| | | postgraduates in industries and research. Dt. 14 th June 2020 | |
| 51 | An Integrated Learning Pedagogy | Participated in webinar on ‘The impact of Research Data and Metrics’. Organized by Skyline University College dt. April 21,2020 | M.Sc. and Ph.D. |
| 52 | Cutting Edge Pedagogy | Participated in National workshop on ‘Advanced Google Form Dt. May 31, 2020. | B.Sc. and M.Sc. |

DESIGN OF NEW CURRICULA AND COURSES:

Following courses and curricula were designed in the capacity of Head of the Department, Microbiology for YASHWANTRAO MOHITE COLLEGE Pune. The college was only Arts, Science and Commerce College running Microbiology subject under the title of BHARATI VIDYAPEETH , ‘Deemed to be University’ ,Pune.

| Sr. No | Class and Course Title | University/College |
|---------------|---|---------------------------|
| 01 | Class T.Y.B.Sc.- CBCS 2018, MB-51:Medical Microbiology | (BVDU) University |
| 02 | Class T.Y.B.Sc.- CBCS 2018, MB-52: Clinical Pathology | (BVDU) University |
| 03 | Class T.Y.B.Sc.- CBCS 2018, MB-53: Virology | (BVDU) University |
| 04 | Class T.Y.B.Sc.- CBCS 2018, MB-54: Genetics of Prokaryotes | (BVDU) University |
| 05 | Class T.Y.B.Sc.- CBCS 2018, MB-55: Enzyme Kinetics and Regulation | (BVDU) University |
| 06 | Class T.Y.B.Sc.- CBCS 2018, MB-56: Practical course III | (BVDU) University |
| 07 | Class T.Y.B.Sc.- CBCS 2018, MB-57: Practical course IV | (BVDU) University |
| 08 | Class T.Y.B.Sc.- CBCS 2018, MB-58: Practical course V | (BVDU) University |

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| 09 | Class T.Y.B.Sc.- CBCS 2018, MB-59 A: Food and Dairy Microbiology | (BVDU) University |
| 10 | Class T.Y.B.Sc.- CBCS 2018, MB-59 B: Applied Microbiology I | (BVDU) University |
| 11 | Class T.Y.B.Sc.- CBCS 2018, UGF : Soft skills | (BVDU) University |
| 12 | Class T.Y.B.Sc.- CBCS 2018, MB-61: Chemotherapy and Biomedical Instrumentation | (BVDU) University |
| 13 | Class T.Y.B.Sc.- CBCS 2018, MB-62: Immunology | (BVDU) University |
| 14 | Class T.Y.B.Sc.- CBCS 2018, MB-63: Biotechnology | (BVDU) University |
| 15 | Class T.Y.B.Sc.- CBCS 2018, MB- 64: Genetics of Eukaryotes and Gene Manipulation | (BVDU) University |
| 16 | Class T.Y.B.Sc.- CBCS 2018, MB-65 : Microbial metabolism and Biochemical Evolution | (BVDU) University |
| 17 | Class T.Y.B.Sc.- CBCS 2018, MB- 66: Practical Course III | (BVDU) University |
| 18 | Class T.Y.B.Sc.- CBCS 2018, MB-67: Practical Course IV | (BVDU) University |
| 19 | Class T.Y.B.Sc.- CBCS 2018, MB-68: Practical Course V | (BVDU) University |
| 20 | Class T.Y.B.Sc.- CBCS 2018, MB-69 Agricultural and Environmental Microbiology | (BVDU) University |
| 21 | Class T.Y.B.Sc.- CBCS 2018, MB-69 B: Applied Microbiology II | (BVDU) University |
| 22 | Class T.Y.B.Sc.- CBCS 2018, MB-69 C: Advanced Techniques in Microbiology II | (BVDU) University |
| 23 | Ph.D. Course work Research Methodology | (BVDU) University |
| 24 | Ph.D. Course work Microbiology | (BVDU) |

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|----|--------------------------|-------------------------------|
| | | University |
| 25 | M.Sc. Microbiology (NEP) | Shivai University Kolhapur |

**PARTICIPATED IN SYLLABUS DESIGNING WORKSHOPS AS A MEMBER OF BOS,
'GARWARE COLLEGE PUNE. (Autonomous College).**

| Sr. No. | Design of new curricula /courses |
|---------|----------------------------------|
| 1 | B.Sc. Microbiology : |
| 2 | M.Sc. Microbiology |

(c) MOOCs

| Sr. No. | Development of MOOCs | Title of MOOCs |
|---------|--|---|
| 1 | Development of complete MOOCs in 4 quadrants (4 credit course) (In case of MOOCs of lesser credits 05 marks/ credit) | Please Refer Google class room IDs for verification Quadrant 1: e-Tutorial (video) for F.Y., S.Y., M.Sc. Quadrant 2: e-content with about 3500 words (PDF, Text, e-books, Web Resources etc.) for F.Y., S.Y., M.Sc. Quadrant 3: Assessment (Problem/solutions/MCQs/ Quizzes/Assignments) for F.Y., S.Y., M.Sc. Quadrant 4: Discussion with F.Y., S.Y., M.Sc. students. |
| 2 | MOOCs (developed in 4 quadrant) per module /lecture | Managing online classes and co-creating MOOCs. (FDP Ramanujan College April20, to May 6, 2020 National webinar E content Development Dt. 1-2 May 2020 |
| 3 | Content writer/subject matter expert for each module of MOOCs (at least one quadrant) | E-Learning workshop dt 1 Dec 2018 |

E-Content

| Sr. No. | Development of E-Content | Title of E-Content | Credits Assigned |
|---------|---|--|-------------------|
| 1 | Development of e-Content in 4 quadrants for a complete course/e-book | Developed E-content in 4 quadrant for e-learning workshop dt. 01/12/2018 | Complete Quadrant |
| 2 | e-Content (developed in 4 quadrants) per module | Development of virtual software which was linked to www.indiamart.com | Complete Quadrant |
| 3 | Contribution to development of e-content module in complete course /paper /e-book (at least one quadrant) | Conducted 7 lectures of 'Scientific Writing' Evidence : Muster book for guest lectures | 2 |
| 4 | Editor of e-content for complete course/ paper /e-book | Google classroom e content, WhatsApp and Telegram Groups | 10 |

RESEARCH GUIDANCE:

| Sr. No. | Degree | No of Thesis / Dissertation Submitted |
|---------|-------------------|--|
| 1 | Ph. D. | 4 on going |
| 2. | P.G. Dissertation | 23 Dissertations Submitted to Bharati Vidyapeeth (Deemed to be University), Pune and 05 Dissertations submitted to Shivaji University , Kolhapur |

RESEARCH PROJECTS COMPLETED

| Sr. No. | Title | Agency | Year of completion |
|---------|---|--|--------------------------|
| 1 | Study of Immunomodulating and antiviral properties of plants | UGC New Delhi | 16/03/2011 to 16/03/2013 |
| 2 | Study of Immunomodulator activity of formulation | Research project no. 169, National Toxicology Centre, Pune | 01/10/2011 to 27/04/2012 |
| 3 | Study of safety parameters and immunomodulating properties of potential immunomodulators. | BVDU, Yashawantrao Mohite College Pune | 2011-2012 |

RESEARCH PROJECT (ONGOING)

| Title | Agency | Year of completion | Whether Co-PI | Grant (Rs. Lakh) |
|---|----------------------------|--------------------|---------------|------------------|
| TO DEVELOP GAMMA PROTOTYPE OF 'BIOLOGICAL WASTE INCINERATOR | BIRAC, Government of India | Ongoing | Yes | 50 |

CONSULTANCY

| Sr. No. | Title | Agency | Year of completion | Whether PI / Co-PI | Amount Mobilized (Rs. Lakh) |
|---------|---|---|-----------------------------------|--------------------|-----------------------------|
| 1. | Technology transfer to Dinakar Aayurvedic Pharmacy | Dinakar Aayurvedic Pharmacy, Karad | 02/01/2012 to 02/01/2022 | PI | 25 |
| 2. | Consultant for Droplets Innovative Incinerators Pvt. Ltd. | Droplets Innovative Incinerators Pvt Ltd. | 16 th May 2023 onwards | consultant | 50 |
| 3. | HIV testing and counselling (Evidence NARI letter dt 5/11/96) | National Institute of Virology | 1995-96 | PI | Charity |
| 4. | HIV testing and counselling (Evidence NARI letter dt 25/09/2000) | National Institute of Virology | 2000-2001 | PI | Charity |
| 5. | Evaluation of microbial load in State Transport Vehicle dt 11/07/2012 letter of depot manager | Maharashtra State Transport Depot, Pune | 2012-13 | PI | Charity |
| 6. | Making Science Fun Sunday Sakal Times dt 10/03/2013 | Applied Research Institute, Pune | 2013 onwards | PI | Charity |
| 7. | WHO guidelines correspondence through NARI Pune | Social news paper platform | 6 July 2013 | PI | Charity |
| 8. | Consultant for Elixer Society for HIV people. | Elixer Society | 2008 | PI | Charity |
| 9. | Reviewer for the Journal of the American Heart Association | American Heart Association | 2020 onwards | PI | Charity |

PATENTS/IPRS

Patents /IPRs (Registered) (21)

| Sr. No. | Academic Year | Title of the patent | Type of the patent (National/ International) | Patent Application Number | Date of Filing the IPR |
|---------|---------------|--|--|---------------------------|------------------------|
| 1 | 2005-06 | Invention of herbal drug against HIV infection/ AIDS | National | 1512/MUM/2005 | 07/12/2005 |
| 2 | 2009-10 | Invention of Immunomodulating Agent Against HIV infection/AIDS | National | 2326/MUM/2009 | 07/10/2009 |
| 3 | 2012-13 | 'Invention of improved process for obtaining <i>Piper longum</i> derived product having distinct properties with respect to enhancement of spermatogenesis process. | National | 1632/MUM/2013 | 06/05/2013 |
| 4 | 2012-13 | 'Invention of <i>Picrorrhiza kurroa</i> derived product having distinct properties with respect to augmentation of spermatogenesis process' | National | 1633/MUM/2013 | 06/05/2013 |
| 5 | 2012-13 | 'Novel product obtained from <i>Chlorophytum borivilianum</i> , <i>Piper longum</i> , <i>Picrorrhiza kurroa</i> , by using innovative steps and the unique blending process for enhancement of spermatogenesis | National | 1634/MUM/2013 | 06/05/2013 |

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|----|---------|--|----------|---------------------------------|------------|
| | | process' | | | |
| 6 | 2012-13 | 'Invention of <i>Chlorophytum borivillianum</i> derived product having distinct properties with respect to enhancement of spermatogenesis process. | National | 1635/MUM/2013 A | 06/05/2013 |
| 7 | 2014-15 | Invention of mast stabilizing properties of <i>Piper longum</i> , <i>Aloe vera</i> , <i>Cynodon dactylon</i> and <i>Cymbopogon citratus</i> | National | 1803/MUM/2015 6/5/2015A | 06/05/2015 |
| 8 | 2017-18 | Chromatography column with perforated gel slots | National | 296390, CBR No 15996 | 03/08/2017 |
| 9 | 2017-18 | Cylindrical Sanitary Pad Incinerator | National | 298132 CBR No. 19257 | 05/10/2017 |
| 10 | 2017-18 | Multiunit aseptic Chamber | National | Design Number: 299682 | 24/11/2017 |
| 11 | 2018-19 | Green pathofree sanitary pad incinerator | National | Application number 314445-001 | 01/02/2019 |
| 12 | 2018-19 | Aerosole trapper Ballal pipe | National | Application number 314449-001 | 01/02/2019 |
| 13 | 2019-20 | Hospital bed with adjustable inbuilt commode | National | Application number : 318608-001 | 11/06/2019 |
| 14 | 2019-20 | Microbial filters for AC vents | National | Application Number: 325713-001 | 09/01/2020 |
| 15 | 2019-20 | Inoculating loop for microbial isolation | National | Application No. 327333-001 | 15/02/2020 |
| 16 | 2019-20 | Shield for car drivers | National | Application No. 327332-001 | 15/02/2020 |
| 17 | 2019-20 | Incinerator for | National | Application No. | 14/08/2019 |

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|----|---------|--|---------------|--|------------|
| | | biological waste | | 201921032976, CBR No. 17857 | |
| 18 | 2019-20 | INCINERATOR FOR BIOLOGICAL WASTE | International | International Patent Application No. PCT/IB2020/054376 International Bureau of the World Intellectual Property Organization, Geneva | 08/05/2020 |
| 19 | 2021-22 | Impact Intensity Reducing Mobile Body | National | Patent Application No. 202221008578 | 18/02/2022 |
| 20 | 2022-23 | A Device for investigating cell movement | National | Patent Application No. 202221072427 | 14/12/2022 |
| 21 | 2024-25 | Biomedical Waste Incinerator | National | Patent Application No. 202521018934 | 03.03.2025 |

APPROVED IPR/ PATENTS: (10)

(International – 02 National – 08)

| Sr. No | Title of the IPR/ Patent | Details about the IPR/ patent and technology transfer | Valid up to |
|--------|---|--|--|
| 01 | Design patent entitled, 'Multiunit Aseptic Chamber' | Patent approval certificate number: 67170 dt. 07/09/2018 , 14:53:21 | 07/09/2028 with extension up to 07/09/2033 |
| 02 | Design patent of 'cylindrical sanitary pad incinerator' | Patent approval certificate number: 68581 dt. 28/11/2018 , 12:36:18 | 28/11/2028 with extension up to 28/11/2033 |
| 03 | Chromatography column with perforated gel slots | Patent approval certificate number: 74233 dt. 24/04/2019 , 11:55:18 | 24/04/2029 with extension up to 24/04/2034 |
| 04 | Hospital Bed with adjustable inbuilt commode | Patent approval certificate number: 80365 dt. 26/08/2019 , 12:42:14 | 26/08/2029 with extension up to 26/08/2034 |
| 05 | Inoculating loop for microbial isolation | Patent approval certificate number: 92819 dt. 10/11/2020 | 10/11/2029 with extension up to 10/11/2034 |

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|----|---|--|--|
| | | | |
| 06 | Invention of mast cell stabilizing properties of <i>Piper longum</i> , <i>Aloe vera</i> , <i>Cynodon dactylon</i> and <i>Cymbopogon citratus</i> | Approved. Patent No 394150 Dt. 04/04/2022 | Valid up to 06/05/2035 |
| 07 | Microbial filters for AC vents | Patent approval certificate number: 106450 dt. 22/12/2021 | Valid up to 22/12/2031 with extension up to 22/12/36 |
| 08 | Incinerator for Biological Waste | Approved vide Patent Certificate No. 394390 Dt. 07/04/2022 | Valid up to 14 th August 2039 |
| 09 | Invention of improved process for obtaining piper longum derived product having distinct properties with respect to enhancement of spermatogenesis process. | Approved vide patent certificate number 404899 dt. 29/08/2022 | Valid up to 6 th May 2033 |
| 10 | A device for investigating cell movement | Approved vide patent certificate number 520323 dt. 05/03/2024 | Valid up to 14/12/2042 |

POLICY DOCUMENTS: (9)

| Sr. No. | Title | Party no.1 | Party no. 2 | Date of policy document |
|----------------|--|------------------------|---|--------------------------------|
| 1 | Agreement for seeking Intellectual Property Rights | Bharat Bajarang Ballal | National Biodiversity Authority, Government of India. | 12 August 2010 |
| 2 | Agreement for seeking Intellectual Property Rights | Bharat Bajarang Ballal | National Biodiversity Authority, Government of India. | 12 July 2017 |
| 3 | Consent for mutual co-operation for the purpose of research. | Bharat Bajarang Ballal | Golwilkar Metropolis | 3 June 2013 |
| 4 | Haffkine Policy Document | Bharat Bajarang Ballal | Haffkine Research Institute Mumbai | 29 August 2008 |
| 5 | Applied Research | Bharat Bajarang | Government of | 20 January 2011 |

| | | | | |
|---|--|------------------------|---|---------------|
| | Institute | Ballal | Maharashtra | |
| 6 | Agreement for seeking Intellectual Property Rights | Bharat Bajarang Ballal | National Biodiversity Authority, Government of India. | 16 Feb 2022 |
| 7 | Agreement for seeking Intellectual Property Rights | Bharat Bajarang Ballal | National Biodiversity Authority, Government of India. | 21 March 2022 |
| 8 | Agreement between DPKM and Patent holder | Bharat Bajarang Ballal | Dr.Patangrao Kadam Mahavidyalaya | 24 March 2023 |
| 9 | Agreement between Patent Office and Droplets | Bharat Bajarang Ballal | Patent Office | 20 March 2020 |

AWARDS (16)

| Sr. No. | Fellowship / Award | Year | International /National | Awarding Academic Body/ Association |
|----------------|------------------------------|-------------|--------------------------------|--|
| 1. | Best Research Paper Award | 2000 | National | 40 th Annual A.M. I. Conference, Bhubaneswar, January, 22-24 |
| 2. | Best Research Paper Award | 2003 | National | 44 th AMI conference Dharwad,Karnataka |
| 3. | Best Research Paper Award | 2006 | National | Conference Barkattulla University Bhopal |
| 4. | Best Research Paper Award | 2010 | National | Conference, Abeda Inamdar Senior College of Arts, Science and Commerce, Pune |
| 5. | AIDS research award | 2012 | International | Friends International Society. |
| 6. | Best Interjector | 2012 | International | AMERICAN SOCIETY FOR MICROBIOLOGY (ASM) |
| 7. | Indian Cultural Social Award | 2012 | International | International Human Rights Justice Fedaration |
| 8. | Best Teacher Award | 2013 | National | Pune Municipal Corporation |
| 9. | Best Research Paper Award | 2016 | International | International Conference HSDS 2016 |

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|-----|---|-----------|---------------|--|
| 10. | Best Researcher Award | June 2017 | National | H V Desai College Pune and Microbiologist's Society of India. |
| 11. | Best Teacher Award | July 2017 | National | H V Desai College Pune and Microbiologist's Society of India. |
| 12. | Second Prize | 2019 | National | National Level Seminar |
| 13. | Best Research Paper Award | 2021 | International | International Conference Abeda Inamdar College Pune |
| 14. | Social work Acclamation certificate | 2023 | National | Chandrasekhar Magdum Sc. Sangli |
| 15. | Award for substantial contribution in the field of Science and Technology | 2024 | National | Government of India, at Kartavyapath New Delhi on the occasion of 75 th Republic Day. |
| 16. | Best Consultant for Startup: Zone Winner Award | 2025 | National | Pune Startup Fest 25 Dt. 11 th and 12 th January 2025 |

INVITED LECTURES/ DUTIES AS A RESOURCE PERSON:

| Sr. No. | Title of the speech | Title of the event | Organized by | Date |
|---------|--|--|---|-----------------|
| 1 | Intellectual property rights and patent registration | 3 days workshop on 'Innovations in Teaching and Learning in Life' | Teaching and Learning Center SPPU, Pune (Center name: K.A.A.N.M. Sonawane College, Satana) | 14 Dec. 2019 |
| 2 | Innovative methods in teaching | 3 days workshop on 'Innovations in Teaching and Learning in Life' | Teaching and Learning Center SPPU, Pune (Center name: K.A.A.N.M. Sonawane College, Satana) | 14 Dec. 2019 |
| 3 | Intellectual property rights and patent registration | One day National Webinar on Intellectual property Rights in Life Sciences. | Microbiologist Society, India, Y. C. College Lakhandur, District Bhandara, Arts and Science College, Pulgaon, District-Vardha | 28 January 2020 |
| 4 | Intellectual Property Rights | Lead College Activity | S.G.M. College, Karad, District-Satara. | 31 January 2020 |
| 5 | AIDS | AIDS awareness program | Dilasa Sanstha, Shabdhan Kavya Manch and Jagtap Pratishthan, Pimpri | 18 October 2007 |
| 6 | Popularization of Science | Lecture series | Arranged by Shrimant Dagadusheth Halwai | 04 March 2012 |

| | | | | |
|----|---|--|---|--|
| | | | Trust | |
| 7 | Resource person for UGC sponsored seminar | Lecture | Arranged by SGM College Karad | 27 th and 28 th Dec.2012 |
| 8 | Lead College Activity | Lecture on art of patenting and patent defence | Balasaheb Desai College, Patan | 25 March 2022 |
| 9 | SET Observer | SET Exam dt 26 th March 2023 | SPPU, Pune | 26 March 2023 |
| 10 | BOS member BVDU, Pune | Syllabus designing | BVDU Pune | 21/12/2019 |
| 11 | BOS member BVDU, Pune | Syllabus designing | BVDU Pune | 14/08/2018 |
| 12 | BOS Member, Abasaheb Garware College, Pune (Autonomous) | B.Sc., M.Sc. Syllabus designing | Abasaheb Garware College, Pune (Autonomous) | 02/03/2022 |
| 13 | Member of BOS Sub committee SUK, Kolhapur | M.Sc. Syllabus designing | Shivaji University, Kolhapur | 07/09/2023 |
| 14 | Sectional In charge of Microbiologists Society, India. | Association Activities | SPPU, Pune | 2018-19 |
| 15 | Co-Ordinator of Microbiologists Society, India. | Association Activities | SPPU, Pune | 16/07/2018 |
| 16 | Co-Ordinator Microbiologists Society, India. | Association Activities | Shivaji University, Kolhapur | 20/06/2023 |

**PAPER PRESENTATIONS IN
SEMINARS/CONFERENCES/PROCEEDINGS: (100)**

(Descending Order)

| Sr . No. | Title of the Paper | Theme/Title of the Conference/Seminars | Organized by | Date | Abstract / Page no. | National/ International |
|----------|---|---|---|--|----------------------------|-------------------------|
| 1 | Study of symbiotic interaction of <i>Pantoea calida</i> and <i>Aspergillus</i> spp. in the development of <i>Pityriasis capitis</i> with concurrent evaluation of antifungal activities of selected 'antidandruff shampoos' | International E Conference on Integrated Sciences | Shri Yashwantrao Patil Science College Solankur, Taluka- Radha Nagari, District- Kolhapur | 8-9 th Feb 2024 | Oral E Conference | International |
| 2 | Isolation and Identification of potential spoilage causing fungi from end products of <i>Curcuma longa</i> L. & evaluation of antifungal activities of 'Fluconazole' | International E Conference on Integrated Sciences | Shri Yashwantrao Patil Science College Solankur, Taluka- Radha Nagari, District- Kolhapur | 8-9 th Feb 2024 | Oral presentation | International |
| 3 | Study of air quality in the vicinity of common biomedical waste treatment facility center of Govandi, Mumbai. | National level poster presentation competition | Dr. Shivajirao Kadam College of Pharmacy, Kasabe Digraj, Sangli | 11/03/2023 | Supplement no. 1 | National |
| 4 | Evaluation of air quality during combustion of used and disposed sanitary napkins in the patented biological | International conference on emerging trends in combating multidrug resistant superbugs 2021 | Abeda Inamdar College, Pune | 5 th and 6 th October 2021 | Oral presentation (online) | International |

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| | incinerator. | | | | | |
| 5 | Exploring Nosocomial Pathogens from acclaimed hospitals in Pune | International Conference on Environmental Pollution and Health Management | DBT INDIA, Microbiologist Society India, Career College, Bhopal | 28 th - 29 th , February 2020 | CD-ROM Pg. No. 102 | International |
| 6 | A scientific study on presence of human pathogens with unused sanitary pads, an alarming threat to society | International Conference on Environmental Pollution and Health Management | DBT INDIA, Microbiologist Society India, Career College, Bhopal | 28 th - 29 th , February 2020 | CD-ROM Supplement | International |
| 7 | Study of efficacy of traditional ayurvedic medicines of Sukshma triphala, Gandhak Rasayana @ leaf extract of Tagetes erecta against Acne vulgaris as an attempt to aid Ayush standardization efforts of Government of India | International E Conference on Integrated Sciences | Shri Yashwantrao Patil Science College Solankur, Taluka- Radha Nagari, District- Kolhapur | 8-9 th Feb 2024 | Oral presentation | International |
| 8 | Comparative study of potential pathogen from air conditioned and non air conditioned buses | International E Conference on Integrated Sciences | Shri Yashwantrao Patil Science College Solankur, Taluka- Radha Nagari, District- Kolhapur | 8-9 th Feb 2024 | Oral presentation | International |
| 9 | Isolation of MDR pathogens from sanitary pads and study of social links for their prevalence | National level seminar on 'Current trends in identification and diagnostics'. | Government college of Arts, Science and Commerce, Khandola, Marcela-Goa - 403107, India | 10/12/2019 | 11 | National |
| 10 | Evaluation of indoor air quality from Maharashtra state air conditioned buses with special emphasis on | National level seminar on 'Current trends in identification and diagnostics'. | Government college of Arts, Science and Commerce, Khandola, Marcela-Goa - | 10/12/2019 | 12 | National |

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| | MDR pathogen | | 403107, India | | | |
| 11 | Isolation of drug resistant pathogens from dish washer scrubbers from residential and commercial sources. | National level seminar on 'Current trends in identification and diagnostics'. | Government college of Arts, Science and Commerce, Khandola, Marcela-Goa - 403107, India | 10/12/2019 | 15 | National |
| 12 | Isolation of commercial pathogens from cosmetic equipments. | National level seminar on 'Current trends in identification and diagnostics'. | Government college of Arts, Science and Commerce, Khandola, Marcela-Goa - 403107, India | 10/12/2019 | 14 | National |
| 13 | Biological waste management through design and development of sanitary pad incinerator with comparative evaluation | DBT-STAR Funded National Conference on recent trends in solid waste management (NCRISM-2019) | Organized by Microbiology society of India in collaboration with YCIS, Satara, Maharashtra, In | January 30-31, 2019 | Oral presentation | National |
| 14 | Study of potential antimicrobial activities of selected plant extracts against ESKAPE pathogens with predictive study of P-glycoprotein efflux protein | 59 th Annual International Conference of Association of Microbiologists of India and International Symposium on Host Pathogen Interactions | School of Life Sciences, University of Hyderabad | December 9-12, 2018 | Abstract no.: AMRP/001(30095) Registration ID: 30095 Proceedings Page no 293 | International |
| 15 | Study of nosocomial pathogens with respect to their distribution, source and drug resistance | 59 th Annual International Conference of Association of Microbiologists of India and International Symposium on Host Pathogen Interactions | School of Life Sciences, University of Hyderabad | December 9-12, 2018 | Abstract no.: AMRP/003 (20056) Registration ID: 20056 | International |
| 16 | Isolation and Characterization of Drug resistant Pathogens from | 106 th Indian Science Congress | The Indian Science Congress Association | January 3-7, 2019 | Abstract No. PP-20, Page No. 235 | International |

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| | fresh meat samples collected from slaughter houses. | | ,Kolkata | | | |
| 17 | Study of absolute CD ₄ count in HIV infected individuals following phase-II human clinical trials. | Microbial Technology for Better Tomorrow (ICMTBT-2018) | Dr. D.Y. Patil Arts, Commerce and Science College, Pimpri, Pune, | 17th - 19th February 2018 | CD-ROM | International |
| 18 | Spectroscopic analysis of <i>Chlorophytum borivillianum</i> , <i>Spilanthes paniculata</i> Wall. Ex. DC. And <i>Withania somnifera</i> | National Conference on 'Ingenious Trends in Life Sciences', | Abeda Inamdar Senior College of Arts, Sc. & Comm. Pune, 6 th and 7 th Oct. 2017 | 6 th and 7 th Oct. 2017 | Page no 34 | National |
| 19 | Fourier Transformer Infra Red Spectroscopy study of <i>Wagatia spicata</i> Dalz. And <i>Picrorrhiza kurroa</i> . | National Conference on 'Ingenious Trends in Life Sciences', | Abeda Inamdar Senior College of Arts, Sc. & Comm. Pune, | 6 th and 7 th Oct. 2017 | pg. no. 26 | National |
| 20 | Study of antibacterial activities of selected immunomodulating plants. | National Conference on 'Ingenious Trends in Life Sciences', organized | Abeda Inamdar Senior College of Arts, Sc. & Comm. Pune, | 6 th and 7 th Oct. 2017 | Pg. no. 36 | National |
| 21 | Study of antifungal activities of selected immunomodulating plants. | National Conference on 'Ingenious Trends in Life Sciences', | Abeda Inamdar Senior College of Arts, Sc. & Comm. Pune, | 6 th and 7 th Oct. 2017 | Pg. no. 36 | National |
| 22 | Need of CBWTF to non medico higher education institutes. | International Youth Conference, | Mitsom College Pune and TERRE Policy Center, Pune. | dt.3 rd March 2017. | Oral presentation | International |
| 23 | Enterovirus as an emerging pathogen for development of ulcerative pharyngitis, a case study. | National Conference on 'Recent trends and Opportunities in Life Sciences | 2017 (RTOLS-2017), Organized by 'Science College, Saswad' | 24 th and 25 th January 2017 | MM-25,63 | National |

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| 24 | Study of the effect of biological immunomodulators on percent Neutrophil count in Albino mice. | 'Recent Trends in Physical, Chemical and Biosciences' (RTPCB-2016), | Vidya Pratishthan's, Arts, Science and Commerce College, Baramati, Pune-Maharashtra, India. | Dt. 16 th -17 th Decem ber 2016 | BPP -18, pg. 122 | National |
| 25 | Exploring Anti HIV principles of blended formulation of <i>Chlorophytum borivilianum</i> , <i>Withania somnifera</i> , <i>Wagati a spicata Dalz</i> , <i>Picrorrhiza kurroa</i> and <i>Spilanthes paniculata</i> | 3 rd International Conference on Herbal and Synthetic Drug Studies (HSDS-2016) | Abeda Inamdar College, Pune, University of Kansas Cancer Center, USA and ISTRA Pune. | Jan. 07-09,2016 | P-06, Pg. No. 67 | Internati onal |
| 26 | Study of leukocyte count in the patient having progressive cellulitis with concurrent left ventricle failure. | International Conference on 'New Horizons in Biotechnology (NHBT-2015), | NHBT Trivandrum, Kerala, India. | Nov. 22-25,2015 | Supplement Publication | Internati onal |
| 27 | Study of Warfarin resistance in IHD patient. | International Conference on 'New Horizons in Biotechnology (NHBT-2015), | Trivandrum, Kerala,India. | Nov.22-25, 2015 | Supplement Publication | Internati onal |
| 28 | Availing CBWF TO Senior Colleges | National Conference on Advances and Challenges in Green Technology | Singhgad College of Science Pune | Feb. 13-14,2015, | Oral P-38 | National |
| 29 | Effect of herbal extracts on CD ₄ count in HIV infected individuals | New Trends in Biotechnology | Osmania University Hydrabad, Feb.26-28,2015 | Feb. 26-28, 2015 | VMVM- 24, Pg.27 | Internati onal |
| 30 | Study of warfarin therapy interference by Streptococcus pneumoniae in the patient of 'coronary artery | New Trends in Biotechnology | Osmania University Hydrabad, Feb.26-28,2015 | Feb. 26-28, 2015 | VMVM-089, Pg.76 | Internati onal |

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| | calcification | | | | | |
| 31 | Study of Immunomodulator agents in HIV infected individuals | International Conference on Contemporary Research in Chemical and Life Sciences | Sadguru Gadge Maharaj College, Karad. (ICCRCLS-2015). | 22-23 April 2015 | Oral presentation | International |
| 32 | 'Neutrophil Adhesion Test' of herbal extracts as a mean for evaluation of cellular immunity. | 54 th Annual Conference of Association of Microbiologist of India | Maharshi Dayanand University Rohatak-124001,Harayana, India. | 17 th Nov.2013 | Pg.180MMV V-099 | International |
| 33 | Exploring Etiopathology of persistent post influenza cough | 54 th Annual Conference of Association of Microbiologist of India | Maharshi Dayanand University Rohatak-124001,Harayana, India. | 17 th Nov.2013 | MMVV-064, Pg.159 | International |
| 34 | Isolation of food borne <i>Salmonella</i> from mid day meals with respect to pune region. | 54 th Annual Conference of Association of Microbiologist of India | Maharshi Dayanand University Rohatak-124001,Harayana, India. | 17 th Nov.2013 | MMVV-085, Pg.171 | International |
| 35 | Effect of herbal extracts on haemoglobin percentage of white Albino Mice. | National Conference on BioEngineering Sciences | College of Engineering , Pune | 15 th to 16 th March 2013 | PP-5, Pg. -75 | National |
| 36 | Isolation of MDR <i>Escherichia coli</i> from the serum sample of Adenocarcinoma patient and the study of plasmid curing agent. | International Conference on Microbial World | KIIT University,Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD2-598 Pg.362 | International |
| 37 | Isolation of pathogens from state transport vehicles. | International Conference on Microbial World | KIIT University,Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD1-381 Pg.253 | International |
| 38 | Isolation of food borne pathogens from potential carriers. | International Conference on Microbial World | KIIT University,Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD2-425 Pg.275 | International |
| 39 | Isolation of pathogens from | International Conference on | KIIT University,Bhuba | 22 nd to 25 th | PD2-556 | International |

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| | subway foods. | Microbial World | neswar, Odisha | Nov.2012 | Pg.341 | |
| 40 | Isolation of potential pathogens from cosmetics. | International Conference on Microbial World | KIIT University, Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD2-625 Pg.375 | International |
| 41 | Isolation of pathogens from raw vegetables supplied to five star hotels. | International Conference on Microbial World | KIIT University, Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD2-641 Pg.383 | International |
| 42 | Isolation of <i>Acinobacter calcoaceticus</i> from food handlers and exploring the new way of disease transmission for the pathogens. | International Conference on Microbial World | KIIT University, Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD1-361 Pg.243 | International |
| 43 | Isolation of <i>Aeromonas hydrophila</i> , a flesh eating bacteria from hand impressions of food handlers. | International Conference on Microbial World | KIIT University, Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD2-568 Pg.347 | International |
| 44 | Determination of most probable number of coliforms from water reservoir used for dish washing purpose. | International Conference on Microbial World | KIIT University, Bhubaneswar, Odisha | 22 nd to 25 th Nov.2012 | PD2-522 Pg.324 | International |
| 45 | Studies on Indian Medicinal Plants with respect to regulation of Innate immunity | National seminar on 'Recent Trends in Life Sciences' | Yashwantrao Mohite College, Pune | 21 st to 22 nd December 2012 | P-2, Pg 66 | National |
| 46 | Effect of <i>Picrorrhiza kurroa</i> on phagocytic cells of White Albino Mice | National seminar on 'Recent Trends in Life Sciences' | Yashwantrao Mohite College, Pune | 21 st to 22 nd December 2012 | P-4, Pg 68 | National |
| 47 | Effect of <i>Piper longum</i> on cellular immunity of White Albino Mice | National seminar on 'Recent Trends in Life Sciences' | Yashwantrao Mohite College, Pune | 21 st to 22 nd December 2012 | P-3, Pg 67 | National |

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| 48 | Effect of <i>Chlorophytum borivilianum</i> on haematological parameters of experimental animals. | National seminar on 'Recent Trends in Life Sciences' | Yashwantrao Mohite College, Pune | 21 st to 22 nd Decem ber 2012 | P-5, Pg 69 | National |
| 49 | 'Study of Antibacterial Activity of Indian Medicinal plants and conservation of Biodiversity through 'Tissue culture technique' | UGC sponsored national seminar on 'Biodiversity Conservation and Protection' | Yashwantrao Mohite College, Pune-38 | 13th and 14th March 2012 | Pg. 36 | National |
| 50 | 'Study of Antifungal Activity of Indian Medicinal plants and Phytochemical Analysis of Piper longifolium | UGC sponsored national seminar on 'Biodiversity Conservation and Protection' | Yashwantrao Mohite College, Pune-38 | 13th and 14th March 2012 | Pg. 42 | National |
| 51 | Probiotics to alleviate irritable bowel syndrome | one day seminar on ' Biotechnology for Better Tomorrow-2020 | Department of Microbiology, Dr. Babasaheb Ambedkar Marathwada University, sub campus, Osmanabad and Microbiologist Society of India. | January 22, 2012 | Pg. | National |
| 52 | 'Therapeutic value of 25-OH-cholecalciferol in the treatment of chronic arthritis in Chikungunya- A virgin application' | International conference on 'New Horizons in Biotechnology' | National Institute for interdisciplinary science and technology, NIIST, CSIR, Trivandrum, The Biotech Research Society, INDIA | November 21-24, 2011 | page no. 251, Abstract no MB-28 | Internati onal |
| 53 | 'Study of prevalence of <i>Salmonella</i> and <i>Shigella</i> during endemic outbreak of diarrhoea in Pune city | 'International conference of Microbial Biotechnology for sustainable development' | Punjab University Punjab | Nov. 3 to 6 2011 | Pg. | Internati onal |
| 54 | 'Study of Potential Pathogens in | MICROCON 2011, XVII Maharashtra | Bharati Vidyapeeth Deemed | Sept. 22-24, | P-48 Pg. No. 152 | Internati onal |

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| | processed and unprocessed milk sample from Pune region' | Chapter conference of Indian Association of Medical Microbiologist | University, Medical College, Pune | 2011 | | |
| 55 | 'Determination of potability of borewell water available in Pune city' | MICROCON 2011, XVII Maharashtra Chapter conference of Indian Association of Medical Microbiologist | Bharati Vidyapeeth Deemed University, Medical College, Pune | Sept. 22-24, 2011 | P-47 Pg. No. 152 | International |
| 56 | 'Checking of abundance of <i>Salmonella</i> and <i>Shigella</i> on vegetables sold in Pune region' | MICROCON 2011, XVII Maharashtra Chapter conference of Indian Association of Medical Microbiologist | Bharati Vidyapeeth Deemed University, Medical College, Pune | Sept. 22-24, 2011 | P-49 Pg. No. 153 | International |
| 57 | 'Probiotics to alleviate Irritable Bowel Syndrome : A case study'' | 'International Conference on Biotechnology for Better Tomorrow (BTBT-2011) | Dr. Babasahib Ambedkar Marathawada University, Aurangabad, Maharashtra, INDIA. | Feb. 6 to 9 2011, | Page No. 49, OMM-12 | International |
| 58 | 'Study of IgM, IgG and IgA by Nephelometry technique in the patient of Irritable Bowel Syndrome following probiotic therapy' | 51st AMI Conference | Birla Institute of Technology Mesra, Ranchi, INDIA | Dec. 14-17, 2010 | Pag. No. 286, MM-30 | International |
| 59 | 'Study of Probiotics in the treatment of Irritable Bowel Syndrome' | 51st AMI Conference | Birla Institute of Technology Mesra, Ranchi, INDIA | Dec. 14-17, 2010 | Page No. 285, MM.27 | International |
| 60 | 'Study of Tissue Transglutaminase in the patient of Irritable Bowel Syndrome following therapy of Probiotics' | 51st AMI Conference | Birla Institute of Technology Mesra, Ranchi, INDIA | Dec. 14-17, 2010 | Page No. 279, MM.17 | International |

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| 61 | 'Study of endomycelial antibody IgA in the patient of Irritable Bowel Syndrome' | 51st AMI Conference | Birla Institute of Technology Mesra, Ranchi, INDIA | Dec. 14-17, 2010 | Page No. 279, MM.16 | International |
| 62 | 'Effect of herbal extract on Thrombocyte count in HIV-1 (C-strain) infected individuals | National Conference on new frontiers in herbal and synthetic drug studies | Abeda Inamdar College, Pune | 14 th to 16 th Jan 2010 | Page No. 59 | National |
| 63 | 'Immunomodulatory and antiviral effects of herbal extract in HIV -I (C-strain) infected individuals' | National Conference on new frontiers in herbal and synthetic drug studies | Abeda Inamdar College, Pune | 14 th to 16 th Jan 2010 | Page No. 59 | National |
| 64 | 'Evaluation of Probiotics in the Patient of Irritable Bowel Syndrome' | 50th Annual conference of Associations of Microbiologist of INDIA, | NCL, Pune | 15-18th Dec. 2009 | MM-002, Pg. 265 | International |
| 65 | Immunomodulating effects of herbal extracts on the CD4 subset in the HIV-1 (C-strain) infected individuals | 50th Annual conference of Associations of Microbiologist of INDIA, | NCL, Pune | 15-18th Dec. 2009 | MM-001, Pg. 265 | International |
| 66 | 'Study of calibration parameters of flow cytometric tools during antiretroviral therapy' | 49th Annual conference of Associations of Microbiologist of INDIA | University of Delhi | Nov. 18-20-2008 | Pg.316 | International |
| 67 | 'Clinical trials of <i>Wagatia spicata</i> Dalz, <i>Chlorophytum barivilianum</i> , <i>Withania</i> , <i>Somnifera</i> , <i>Picrorrhiza kurroa</i> and patented herbs in HIV (c-strain) infected Individuals' | 49th Annual conference of Associations of Microbiologist of INDIA | University of Delhi | Nov. 18-20-2008 | Pg. 269 | International |

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| 68 | 'Study of cellular parameters in HIV-1 (c-strain) infected individuals following herbal therapy | 49th Annual conference of Associations of Microbiologist of INDIA | University of Delhi | Nov. 18-20-2008 | Pg. 266 | International |
| 69 | Study of Immunomodulating, Biochemical and antiviral Properties of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> , <i>Chlorophytum barivilianum</i> , <i>Wagatia spicata</i> Dalz and two other patented Novel Herbs in The HIV-1 (C-Strain) infected individuals | 34 th Indian Immunology Society Conference | National AIDS Research Institute , Pune | 16 th -18 th December, 2007. | Abstract No. PS- 1-45, Page No. -70 | International |
| 70 | Isolation of Klebsiella pneumoniae from the patient having haematuria & the study of drug resistance | A.M.I. conference | Barkatulla Univ. Bhopal | Dec. 6 to 8, 2006 | Abstract book page No. 102, MG-42 | International |
| 71 | Study of CD ₄ count in HIV-1 (c-strain) infected individual following therapy of non toxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> , <i>Chlorophytum barivilianum</i> , <i>Wagatia spicata</i> Dalz and two other patented Novel Herbs | A.M.I. conference | Barkatulla Univ. Bhopal | Dec. 6 to 8, 2006 | Abstract book page No. 102, MG-42 | International |
| 72 | Study of absolute CD ₄ - court in the HIV-1 (C-strain) infected | 46th AMI conference | Osmania University Hydrabad. | Dec. 8 to 10-2005 | Page No. 120 Abstract No. Med-01). | International |

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| | individual following therapy of non-toxic herbal extract of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> , and two other patented Novel Herbs | | | | | |
| 73 | study of viral load & thrombocyte count in the HIV-1 (c-strain) infected individual following therapy of nontoxic herbal extracts | 46th AMI conference | Osmania University Hyderabad. | Dec. 8 to 10-2005 | Page No. 146 Abstract No. Med-66). | International |
| 74 | Study of absolute CD ₄ count in the HIV-1 (c-strain) infected individuals following therapy of the non toxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> , and two other Novel drugs | Indo-Australian conference on biotechnology in infectious diseases | Kasturba Medical College, MANIPAL | March 1-3, 2005 | P-81, Page No. 113. | International |
| 75 | Study of Plasma Homocysteine count in the HIV-1 (c-strain) infected individuals following therapy of the non toxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel drugs | Indo-Australian conference on biotechnology in infectious diseases | Kasturba Medical College, MANIPAL | March 1-3, 2005 | P-82-Page No. -114. | International |
| 76 | Study of thrombocyte & | Indo-Australian conference on | Kasturba Medical College, | March 1-3, | P-83-Page No. -115 | International |

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| | viral load in the HIV-1 (c-strain) infected individual following therapy of nontoxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel drugs | biotechnology in infectious diseases | MANIPAL | 2005 | | |
| 77 | Study of thrombocyte count in the HIV-1 (c-strain) infected individual following therapy of nontoxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel drugs | Symposium on molecular basis of disease | Indian Institute of Technology, Madras (IITM). | January 8,9, 2005 | Advanced Biotech, Page No. 19, Volume – 111, issue 7 | International |
| 78 | Study of absolute CD ₄ count in the HiV –C-strain) infected individual following therapy of the non toxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel drugs | Symposium on molecular basis of disease | Indian Institute of Technology, Madras (IITM). | January 8,9, 2005 | Advanced Biotech, Page No. 18, Volume – 111, issue 7 | International |
| 79 | Study of Plasma Homocysteine in the HIV-1 (c-strain) infected individual following therapy of the non toxic herbal extract of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel | 45 th AMI conference, Microtech 2k4 | National Dairy Research Institute, Karnal – 132001 (Haryana). | November 23-25, 2004 | Abstract MPM-4, Page No. 118, | International |

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| | drugs”, | | | | | |
| 80 | Study of absolute CD ₄ count in the HIV-1 (c-strain) infected individual following therapy of the non toxic herbal extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel drugs | 45 th AMI conference, Microtech 2k4 | National Dairy Research Institute, Karnal – 132001 (Haryana). | November 23-25, 2004 | Abstract MPM-6, Page No. 119, | International |
| 81 | Isolation and Characterization of laboratory fungi | 45 th AMI conference, Microtech 2k4 | National Dairy Research Institute, Karnal – 132001 (Haryana). | November 23-25, 2004 | Abstract ECO-10, Page No. 29, | International |
| 82 | Study of absolute CD ₄ count and plasma homocysteine in the HIV-1 (c-strain) infected individual following therapy of the non toxic extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora cordifolia</i> and two other novel drugs” | ASM 104th GENERAL MEETING, New Orleans, USA | Central Hall ASM, New Orleans, USA | May 23-27, 2004 | Abstract No. 4906 T-028, Page No. 143 | International |
| 83 | Reactivity p-24 antigens in HIV-1 infected individuals following long term ayurvedic therapy” | 44 th annual conference of A.M.I | AMI local chapter, Dharwad-Karnataka | 12-14 Nov. 2003 | Page No. 266, | International |
| 84 | Study of absolute CD ₄ count in the HIV-1 infected individual following therapy of the non toxic extracts of <i>Phyllanthus reticulatus</i> , <i>Tinospora</i> | 44 th annual conference of A.M.I | AMI local chapter, Dharwad-Karnataka | 12-14 Nov. 2003 | Page No. 262, | International |

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| | <i>cordifolia</i> and two other novel drug | | | | | |
| 85 | Study of viral load, CD ₄ , count and opportunistic infections in the HIV-1, infected individuals | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | MVM-30, Page No. 75 | International |
| 86 | Formulation of modified coriander seed agar medium | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | MBT-61, Page No. 78 | International |
| 87 | Growth study of <i>Penicillium chrysogenum</i> in coriander broth medium | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | MBT-60, Page No. 128 | International |
| 88 | Study of nutrient utilization in coriander seed broth” by the fungus <i>Penicillium chrysogenum</i> | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | MBT-59, Page No. 127 | International |
| 89 | Formulation of fungal growth medium | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | MBT-58, Page No.127 | International |
| 90 | Study of fungal pigmentation on newly formulated medium and its comparison with respect to traditional fungal medium | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | MBT-62, Page No. 129 | International |
| 91 | Use of <i>Daphnia magna</i> as bioindicator of water pollution | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | EMB-23, Page No. 152 | International |
| 92 | Death rate of <i>Daphnia magna</i> as marker for toxic pollutants in water | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | EMB-24, Page No. 152 | International |
| 93 | Comparative study of <i>Bacillus thuringiensis israelensis</i> H-14 | 43 rd annual conference of A.M.I. | Agricultural University, HISAR | December, 11-13, 2002 | BC-12, Page No. 169 | International |

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| | formulations with respect to its mosquitocidal activity | | | | | |
| 94 | Study of thrombocyte count in the HIV-1 infected individuals. | International conference on HIV / AIDS | Hotel Taj, Mumbai, India | 16-19 December 2001 | Pg | International |
| 95 | Formulation of enrichment medium for Cladosporium oxysporum | 42 nd AMI Conference, Gulbarga | Gulbarga University, Gulbarga | 9-11 November 2001 | Pg | International |
| 96 | Study of Absolute-CD ₄ Count in the HIV-1 infected individuals following therapy of herbal extracts | 42 nd AMI Conference, Gulbarga | Gulbarga University, Gulbarga | 9-11 November 2001 | Oral presentation | International |
| 97 | Study of thrombocyte count and absolute – CD ₄ Count’ in the HIV- 1 infected individuals following therapy of herbal extracts” | 41 st AMI conference, Jaipur, | AMI local chapter, Jaipur | November, 25-27, 2000 | Pg. | International |
| 98 | Effect herbal extracts on the CD ₄ & CD ₈ antigens and study of physical parameters in the HIV infected individual. | International Conference on Microbial biotechnology, trade and public policy, Hyderabad | Osmania University, Hyderabad | 15 th to 17 th July 2000 | Pg. | International |
| 99 | Effect of HIV replication on the population of WBCs and the reactivity of p-24 antigen in the infected individual following long terms ayurvedic therapy” | 40 th Annual A. M. I. Conference | AMI Unit, Bhubaneshwar | January , 22-24, 2000 | Pg. | International |
| 100 | Effect of Sodium taurocholate and | 39 th Annual, A.M.I. | AMI Unit | December, 5- | Pg. | International |

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|--|---|-------------|-----------|----------|--|------|
| | other inorganic compounds on spore germination of <i>Cladosporium oxysporum</i> | conference, | Mangalore | 6, 1998. | | onal |
|--|---|-------------|-----------|----------|--|------|

TECHNOLOGY TRANSFER:

| Name of the Company | Description |
|--|---|
| DROPLETS INNOVATIVE INCINERATORS PRIVATE LIMITED | Transferred patented technology to the company and product is in market. |
| DINAKAR PHARMACY | Transferred patented technology to the company and 2 MEDICINES HAVE BEEN APPROVED BY FDA. |

MEMORABLE EVENTS:

1. To acknowledge my contribution in the economic development of country and in the field of science and technology, Government of India invited me for attending Republic Day Parade of 75th Republic Day at Kartavya Path, New Delhi, dt. 25th January 2024. The event immortalized with felicitation by Mr. Piyush Goyal, Minister of Commerce and Industry, Government of India.



2. The Controller General (CG) of Patents, Designs And Trade Marks (CGPDTM) Government of India, **Shri. Unnat P. Pandit** at New Delhi, discussing innovation on 25th January 2024.



CONTACT DETAILS:

E. Mail: sballal23@gmail.com (Official Correspondence)

sballal23@outlook.com (Research Correspondence)

sballal23@rediffmail.com (Community correspondence)

Mobile: 9822458675

Dr. Bharat Bajarang Ballal