

CURRICULUM VITAE



Name : **Dr. BHARAT BAJARANG BALLAL**

Institute : Yashwantrao Mohite College of Arts, Science and Commerce, Pune. 411038
Bharati Vidaypeeth Deemed University,
Pune , Maharashtra ,India .

Department : Microbiology

Post Held : Associate Professor

Date of Appointment : 06/09/1993

Email : sbballal23@rediffmail.com, bharat.ballal@bharativedyapeeth.edu.in, sbballal23@gmail.com

Mobile : +91-09822458675

Research Profile:

Total Publications Till Date					'h' Index
International	National	Database	Patents and Patent Publications	Total	02
19	01	15	10	45	
Total Presentations in Conferences					RG Score
International	National		State	Total	1.65
63	17		00	80	

EDUCATIONAL QUALIFICATION

Sr. No	Name of Examination	Name of University / Institute / Board	Grade / Class
1	S.S.C.	S.S.C. Board Pune	Distinction
2.	H.S.C.	H.S.C. Board, Pune	Distinction
3	B.Sc. Microbiology	Shivaji University Kolhapur	Distinction
4	M.Sc. Microbiology	Shivaji University Kolhapur	First
5.	P.G.D.H.E. (Post Graduate Diploma in Higher Education)	IGNOU (Indira Gandhi National Open University)	First
6.	SET Exam.	University of Pune	Passed
7	D.I.P.R. (Diploma in Intellectual Property Rights)	New Law College, Pune	Distinction

8.	MS-CIT	Maharashtra State Board of Technical Education	Passed Distinction
9	Ph.D.(Microbiology)	Bharati Vidyapeeth Deemed University,Pune.	Completed

PROFESSIONAL EXPERIENCE: 25 YEARS.

PROFESSIONAL COMPETENCY: IMMUNOLOGY, MEDICAL MICROBIOLOGY.

REFRESHER COURSES

- 1) Completed refresher course in ‘Environmental Science (Microbiology.) conducted by UNIVERSITY OF PUNE in the period of 1-12-2000 to 28-12-2000 & honoured by outstanding performance (0-grade)
- 2) Completed refresher course in ‘Life-Science’ 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). December 2009
 - 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.
 - 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 programmes of comparable quality as may be specified or approved by the University Grants Commission”.

Thus P.G.D.H.E. of I.G.N.O.U., is appropriate education programme of comparable quality as per U.G.C. notification D.O. No. F-1-6/90 (ASC), September 1993, Parab)

Thus

Net creditable orientation programmes – 01 (ONE)

Net creditable refresher programmes – 04 (FOUR)

WORKSHOPS ATTENDED

1. Attended ‘Patent Awareness Workshop’ dt. 17/05/2000 at Agharkar Research Institute PUNE.
2. Attended ‘Workshop on PCR and fermentation Technology’ during 25th Feb. 2008 to 27th Feb. 2008, organized by MITCON Biotechnology Centre, Shivajinagar, Pune.
3. Attended one day workshop on “Bio-diversity, Conservation and Management dt. October 23, 2008, organized by Maharashtra Academy of Sciences at NCL, PUNE.
4. Attended one day workshop and symposium on ‘Medical Instrumentation (Symedin 2009) during 31st Jan. & 1st Feb. 2009, organized by Government College of Engineering Pune.

5. Attended CME on Molecular Diagnostics at Yashda Pune, Organized by Golwilkar Metropolis during 6th and 7th Feb. 2010
6. Attended national seminar on diagnostics techniques arranged by Yashwantrao Mohite College,Pune on 6th March 2010.
7. Attended one day workshop on ‘Phytochemical Analysis of Therapeutically Active Constituents of Pharmaceutically Important Medicinal Plants’. The workshop was organized by Department of Botany, University of Pune on January 13, 2012.
8. Attended workshop entitled, ‘Bioassays and their Applications’. The workshop was organized by Department of Microbiology, Yashwantrao Mohite College Pune in the period of February 23-25, 2012.
9. Attended the workshop of ‘American Society for Microbiology on Scientific Writing and Publishing’ at Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha, India. (22nd November 2012)
10. Participated in the ugc sponsored national workshop on Challenges in chemical Analysis (CICA 2014) held on 13Sept. 2014 by Department of Chemistry, Y.M.College,Pune.
11. Participated in Two Day workshop on ‘Nomenclature of Archae and Bacteria’ organized by MCC,PUNE dt. 9th and 10th September 2016

JOURNAL PUBLICATIONS (20)

- 1) 'Study of absolute CD₄ count and plasma homocysteine in the HIV-1 (c-strain) infected individuals following therapy of Non-toxic extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs', Paper No. T-028, abstracted vide American society for microbiology (ASM) final programme book for 104th General meeting (May 23-27, 2004) Page No. -143 ISBN-1-555-81-313-5 and full length research paper was published online on the web site www.asm.org
- 2) 'Study of absolute CD₄ count in the HIV-1 (c-strain) infected individuals following therapy of non toxic herbal extracts of *Phyllanthus recticulatus*, *Tinospora cordifolia* and two other novel drugs'. Page No. 18, Advanced biotech, Vol-III, Issue 7, January 2005, ISSN-0973-0109.
- 3) The study of Thrombocyte count in the HIV-1 (c-strain) infected individual following therapy of non-toxic, herbal extracts of *Phyllanthus reticulatus*, *Tinaspora cordifolia* and two other novel drugs, Page No. 19, Advanced biotech, Vol-III, Issue-7, January 2005, ISSN-0973-0109.
- 4) 'Invention of herbal drug against HIV infection /AIDS', page No. 855, The Patent Office, Journal dt. 13/01/2006.
- 5) 'Study of immunomodulating, biochemical, and antiviral properties of *Phyllanthus reticulatus*, *Tinospora cordifolia*, *Chlorophytum borrevilinum*, *Wagatia spicata Dalz* and Two other patented novel herbs in the HIV-1 (c-strain) infected individuals', Page No. 87, Bharati Vidyapeeth University Research Journal Vol-V, Number-1, April 2007.
- 6) 'Invention of immunomodulating agent against HIV infection/AIDS', page no 19980,issue no. 46/2011, The Patent Office Journal, dt.18/11/2011.
- 7) Deficiency of 25 –OH Cholecalciferol, an explored factor aggregating chronic arthrititis in Chikungunya and search of its therapeutic potential, Asian Journal of Multidisciplinary Research, Volume I, Issue I, August 2013.
- 8) "Subway foods: A mean to dangerous food borne and nosocomial infections", Research & Reviews : Journal of Food Science & Technology, December 2013, pg 46-49.

- 9) Availing Bio Waste Treatment Facility to Senior Colleges, Asian Journal of Multidisciplinary Research, Volume3 Issue 3, March 2015, Pg. No.27-28, 2348-7186, IF- 0.923
- 10) 'Invention of improved process for obtaining *Piper longum* derived product having distinct properties with respect to enhancement of spermatogenesis process. 1632/MUM/2013, The Patent Office Journal, Issue 11/2015 dt. 13/03/2015, pg.no.28440 Issue 11/2015 dt. 13/03/2015, pg.no.28440
- 11) 'Invention of *Picrorrhiza kurroa* derived product having distinct properties with respect to augmentation of spermatogenesis process' 1633/MUM/2013, The Patent Office Journal, Issue 11/2015 dt. 13/03/2015, pg.no.28443, Issue 11/2015 dt. 13/03/2015, pg.no.28443
- 12) 'Novel product obtained from *Chlorophytum borivilianum*, *Piper longum*, *Picrorrhiza kurroa*, by using innovative steps and the unique blending process for enhancement of spermatogenesis process', 1634/MUM/2013, The Patent Office Journal, Issue 11/2015 dt. 13/03/2015, pg.no.28444, Issue 11/2015 dt. 13/03/2015, pg.no.28444
- 13) Invention of *Chlorophytum borivilianum* derived product having distinct properties with respect to enhancement of spermatogenesis process. 1635/MUM/2013, The Patent Office Journal, Issue 19/2015 dt. 8/05/2015, pg. no.33581
- 14) Invention of mast stabilizing properties of *Piper longum*, *Aloe vera*, *Cynodon dactylin* and *Cymbopogon citratus* Application No. 1803/MUM/2015, 6/5/2015, The Patent Office Journal, Issue 21/2015 dt. 22/05/2015, pg.no.35070
- 15) 'Neutrophil Adhesion Test' as a tool for assessment of immunomodulatory activities of blended formulation of *Chlorophytum borivilianum*, *Withania somnifera*, *Wagatia spicata* Dalz, *Picrorrhiza kurroa* and *Spilanthes paniculata*, International Journal of Advanced Research in Biological Sciences, Issue No. 2(11), pg.no.97-201.2015 (ISBN 2348-8069), IF 5.142. Index Copernicus (5.01)
- 16) Immunomodulatory activities of blended formulation of *Chlorophytum borivilianum*, *Withania somnifera*, *Wagatia spicata* Dalz, *Picrorrhiza kurroa* and *Spilanthes paniculata*, Asian Journal of Multidisciplinary Studies, 3(11), 26-28, 2015. (ISBN 2321-8819), IF 1.498
- 17) *Acinetobacter baumannii*: A contributing factor for progression of 'Interstitial Lung Disease', a case study, International Journal of Advanced Research in Biological sciences', ISBN 2348-8069, 4(2), 161-164, 01-03-2017, Impact Factor 5.252, Index Copernicus- 57.38
- 18) Rifamycin induced fatal ventricular tachycardia, a case study, 'Asian Journal Of Multidisciplinary Studies', 5(3), 106-107, ISBN 2321-8819(Online), 2328-7186 (Print), Impact Factor, 1.498, H index-4, 03.03.2017.
- 19) Proceeding of National Conference on 'Recent Trends in Physical, Chemical and Biosciences' (RTPCB-2016), ISBN: 978-93-81249-24-6, BPP-18, 122, 16th Dec. 2016.
- 20) Effect of blended formulations of selected biological immunomodulators on 'Absolute CD₄ count in HIV 1 infected individuals following Phase II human clinical trials.', International Journal of current research, ISSN: 0975-833X, 9(07), 54902-54905, July 2017, IF: 7.086, H index 6.

DATABASE PUBLICATIONS (15)

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
1	<i>Bacterium</i> BVDU01-BS-MAR-313-LIP03 (NEWLY INVENTED BACTERIUM)	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130881.1
2	<i>Bacillus anthracis</i> strain ATCC 14578	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC119183.1
3	<i>Bacillus endophyticus</i> strain BVDU01-BRAS008-CON 7	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130874.1
4	<i>Enterobacter cloacae</i> strain BVDU01-RB-SAM-005-VEGRC01	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130875.1
5	<i>Aeromonas hydrophila</i> strain BVDU01-BS-RAM-003-PANPO3	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130876.1
6	<i>Acinetobacter calcoaceticus</i> strain BVDU01-BA-MSR-041-PANG02	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130877.1
7	<i>Micrococcus yunnanensis</i> strain BVDU01-MB-RSA-009-CON9	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130878.1
8	<i>Pseudomonas stutzeri</i> strain BVDU01-BAR-MS 073-LIP01	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130879.1
9	<i>Bacillus pumilus</i> strain BVDU01-BM-ARS-013-LIP02	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/KC130880.1
10	<i>Pseudomonas koreensis</i> strain SGM-BVDU-PK-VBRAS-C1/S	08.11.2015	www.ncbi.nlm.nih.gov/nucore/KR868725.1
11	<i>Enterobacter cloaca</i> strain BY1	17.12.2012	www.ncbi.nlm.nih.gov/nuccore/JQ766938
12	<i>Exiguobacterium mexicanum</i> strain BVU3	15.06.2016	www.ncbi.nlm.nih.gov/nucore/KX170833
13	<i>Acinetobacter variabilis</i> strain BVU4	15.06.2016	www.ncbi.nlm.nih.gov/nucore/KX170834
14	<i>Bacillus flexus</i> strain BBB-1	29.01.2017	www.ncbi.nlm.nih.gov/nucore/KX192361
15	<i>Rhizobium nepotum</i> strain BBB-2	29.01.2017	www.ncbi.nlm.nih.gov/nucore/KX192362

DETAILS OF DATABASE PUBLICATIONS: (15)

Sr. No.	OBJECTIVE AND DOMAIN	National / International	Date of Linkage
1.	To study the role of microorganisms in health sector and environment, <i>Bacterium</i> BVDU01-BS-MAR-313-LIP03 (NEWLY INVENTED BACTERIUM) www.ncbi.nlm.nih.gov/nuccore/KC130881.1	International	17/12/2012
2.	To study the role of microorganisms in health sector and environment , <i>Bacillus anthracis</i> strain ATCC 14578 www.ncbi.nlm.nih.gov/nuccore/KC119183.1	International	17/12/2012
3.	To study the role of microorganisms in health sector and environment ,(Sole) <i>Bacillus endophyticus</i> strain BVDU01-BRAS008-CON 7 www.ncbi.nlm.nih.gov/nuccore/KC130874.1	International	17/12/2012
4.	To study the role of microorganisms in health sector and environment, <i>Enterobacter cloacae</i> strain BVDU01-RB-SAM-005-VEGRC01	International	17/12/2012

	www.ncbi.nlm.nih.gov/nuccore/KC130875.1		
5.	To study the role of microorganisms in health sector and environment, <i>Aeromonas hydrophila</i> strain BVDU01-BS-RAM-003-PANPO3 www.ncbi.nlm.nih.gov/nuccore/KC130876.1	International	17/12/2012
6.	To study the role of microorganisms in health sector and environment, <i>Acinetobacter calcoaceticus</i> strain BVDU01-BA-MSR-041-PANG02 www.ncbi.nlm.nih.gov/nuccore/KC130877.1	International	17/12/2012
7.	To study the role of microorganisms in health sector and environment, <i>Micrococcus yunnanensis</i> strain BVDU01-MB-RSA-009-CON9 www.ncbi.nlm.nih.gov/nuccore/KC130878.1	International	17/12/2012
8.	To study the role of microorganisms in health sector and environment, <i>Pseudomonas stutzeri</i> strain BVDU01-BAR-MS073-LIP01 www.ncbi.nlm.nih.gov/nuccore/KC130879.1	International	17/12/2012
9.	To study the role of microorganisms in health sector and environment, <i>Bacillus pumilus</i> strain BVDU01-BM-ARS-013-LIP02 www.ncbi.nlm.nih.gov/nuccore/KC130880.1	International	17/12/2012
10.	To study the role of microorganisms in health sector and environment, <i>Pseudomonas koreensis</i> strain SGM-BVDU-PK-VBRAS-C1/S www.ncbi.nlm.nih.gov/nuccore/KR868725.1	International	08/11/2015
11.	To study the role of microorganisms in health sector and environment, <i>Enterobacter cloaca</i> strain BY1 www.ncbi.nlm.nih.gov/nuccore/JQ766938	International	23/04/2012
12.	To study the role of microorganisms in health sector and environment, <i>Acinetobacter variabilis</i> strain BVU4 www.ncbi.nlm.nih.gov/nuccore/KX170834	International	15/06/2016
13.	To study the role of microorganisms in health sector and environment, <i>Exiguobacterium mexicanum</i> strain BVU3 www.ncbi.nlm.nih.gov/nuccore/KX170833	International	15/06/2016
14.	To study the role of microorganisms in health sector and environment, <i>Bacillus flexus</i> strain BBB-1 www.ncbi.nlm.nih.gov/nuccore/KX192361	International	29/01/2017
15.	To study the role of microorganisms in environment, <i>Rhizobium nepotum</i> strain BBB-2 www.ncbi.nlm.nih.gov/nuccore/KX192362	International	29/01/2017

RESEARCH PAPERS PRESENTED AT CONFERENCES. (Descending order)- 80 (17 National, 63 International)

Sr. No.	Title of the Research Paper	Abstract No.	Name of the conference.
1.	Spectroscopic analysis of <i>Chlorophytumborivilianum</i> , <i>Spilanthes</i>	32, pg. no. 34	National Conference on 'Ingenious Trends in Life Sciences', organized by Abeda Inamdar

	<i>paniculata</i> Wall. Ex. DC. And <i>Withania somnifera</i>		Senior College of Arts, Sc. & Comm. Pune, 6 th and 7 th Oct. 2017
2.	Fourier Transformer Infra Red Spectroscopy study of <i>Wagatia spicata</i> Dalz. And <i>Picrorrhiza kurroa</i> .	26, pg. no. 26	National Conference on 'Ingenious Trends in Life Sciences', organized by Abeda Inamdar Senior College of Arts, Sc. & Comm. Pune, 6 th and 7 th Oct. 2017
3.	Need of CBWTF to non medico higher education institutes.	Oral Presentation	International Youth Conference, Organized by Mitsom College Pune and TERRE Policy Center, Pune. dt.3 rd March 2017.
4.	Enterovirus as an emerging pathogen for development of ulcerative pharyngitis, a case study.	MM-25,63	National Conference on 'Recent trends and Opportunities in Life Sciences 2017 (RTOLS-2017), Organized by 'Science College, Saswad', dt. 24th and 25th January 2017
5.	Study of the effect of biological immunomodulators on percent Neutrophil count in Albino mice.	BPP -18, pg. 122	'Recent Trends in Physical, Chemical and Biosciences' (RTPCB-2016), organized by .Vidya Pratishthan's, Arts, Science and Commerce College, Baramati,Pune-Maharashtra,India
6.	Exploring Anti HIV principles 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-06, Pg. No. 67, Jan. 07-09,2016	3 rd International Conference on Herbal and Synthetic Drug Studies (HSDS-2016), Pune, University of Kansas Cancer Center,USA and ISTR Pune.
7.	Study of leukocyte count in the patient having progressive cellulitis with concurrent left ventricle failure.	Suppliment Publication Nov. 22-25,2015	International Conference on 'New Horizons in Biotechnology(NHBT-2015), Nov.22-25,2015,Trivandrum,Kerala,India.
8.	Study of Warfarin resistance in IHD patient.	Suppliment Publication Nov.22-25,2015	International Conference on 'New Horizons in Biotechnology(NHBT-2015), Nov.22-25,2015,Trivandrum,Kerala,India.
9.	Availing CBWF TO Senior Colleges	P-38 Oral	National Conference on Advances and Challenges in Green Technology, Feb. 13-14,2015,Singhad College of Science Pune

10.	Effect of herbal extracts on CD ₄ count in HIV infected individuals	VMVM- 24, Pg.27 Feb. 26-28, 2015	New Trends in Biotechnology, Osmania University Hyderabad ,Feb.26-28,2015
11.	Study of warfarin therapy interference by Streptococcus pneumoniae in the patient of 'coronary artery calcification	VMVM-089, Pg.76 Feb. 26-28, 2015	New Trends in Biotechnology,Osmania University Hyderabad, Feb. 26-28,2015
12.	'Neutrophil Adhesion Test' of herbal extracts as a mean for evaluation of cellular immunity.	MMVV-099, Pg.180	54 th Annual Conference of Association of Microbiologist of India,Maharshi Dayanand University Rohatak-124001,Harayana, India. (17 th Nov.2013)
13.	Exploring Etiopathology of persistent post influenza cough	MMVV-064, Pg.159	54 th Annual Conference of Association of Microbiologist of India,Maharshi Dayanand University Rohatak-124001,Harayana, India.(17 th Nov.2013)
14.	Isolation of food borne <i>Salmonella</i> from mid day meals with respect to pune region.	MMVV-085, Pg.171	54 th Annual Conference of Association of Microbiologist of India,Maharshi Dayanand University Rohatak-124001,Harayana, India.(17 th Nov.2013)
15.	Effect of herbal extracts on haemoglobin percentage of white Albino Mice.	PP-5 , Pg. -75	National Conference on BioEngineering Sciences, ,College of Engineering , Pune (15 th to 16 th March 2013)
16.	Isolation of MDR <i>Escherichia coli</i> from the serum sample of Adenocarcinoma patient and the study of plasmid curing agent.	PD2-598 Pg.362	International Conference on Microbial World, KIIT University,Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
17.	Isolation of pathogens from state transport vehicles.	PD1-381 Pg.253	International Conference on Microbial World,KIIT University,Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
18.	Isolation of food borne pathogens from potential carriers.	PD2-425 Pg.275	International Conference on Microbial World, KIIT University,Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
19.	Isolation of food borne pathogens from subway foods.	PD2-556 Pg.341	International Conference on Microbial World, KIIT University,Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
20.	Isolation of potential pathogens from cosmetics.	PD2-625	International Conference on Microbial World,

		Pg.375	KIIT University,Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
21.	Isolation of pathogens from raw vegetables supplied to five star hotels.	PD2-641 Pg.383	International Conference on Microbial World, KIIT University, Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
22.	Isolation of <i>Acinobacter calcoaceticus</i> from food handlers and exploring the new way of disease transmission for the pathogens.	PD1-361 Pg.243	International Conference on Microbial World, KIIT University, Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
23.	Isolation of <i>Aeromonas hydrophila</i> , a flesh eating bacteria from hand impressions of food handlers.	PD2-568 Pg.347	International Conference on Microbial World, KIIT University, Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
24.	Determination of most probable number of coliforms from water reservoir used for dish washing purpose.	PD2-522 Pg.324	International Conference on Microbial World, KIIT University,Bhubaneswar, Odisha.(22 nd to 25 th Nov.2012)
25.	Studies on Indian Medicinal Plants with respect to regulation of Innate immunity	P-2, Pg 66	National seminar on ‘Recent Trends in Life Sciences’ Yashwantrao Mohite College,Pune (21 st to 22 nd December 2012)
26.	Effect of <i>Picrorrhiza kurroa</i> on phagocytic cells of White Albino Mice	P-4, Pg 68	National seminar on ‘Recent Trends in Life Sciences’ Yashwantrao Mohite College,Pune (21 st to 22 nd December 2012)
27.	Effect of <i>Piper longum</i> on cellular immunity of White Albino Mice	P-3, Pg 67	National seminar on ‘Recent Trends in Life Sciences’ Yashwantrao Mohite College,Pune (21 st to 22 nd December 2012)
28.	Effect of <i>Chlorophytum borivilianum</i> on haematological parameters of experimental animals.	P-5, Pg 69	National seminar on ‘Recent Trends in Life Sciences’ Yashwantrao Mohite College,Pune (21 st to 22 nd December 2012)

29. The research paper entitled 'Study of Antibacterial Activity of Indian Medicinal plants and conservation of Biodiversity through 'Tissue culture technique' was presented at UGC sponsored national seminar on 'Biodiversity Conservation and Protection' on 13th and 14th March 2012 at Yashwantrao Mohite College, Pune-38
30. The research paper entitled 'Study of Antifungal Activity of Indian Medicinal plants and Phytochemical Analysis of *Piper longifolium* was presented at UGC sponsored national seminar on 'Biodiversity Conservation and Protection' on 13th and 14th March 2012 at Yashwantrao Mohite College, Pune-38
31. Poster entitled ' Biotechnology at Glance' was presented at one day seminar on ' Biotechnology for Better Tomorrow-2020 held on January 22,2012, held at Department of Microbiology,Dr.Babasaheb Ambedkar Marathwada University,sub campus,Osmanabad and Microbiologist Society of India.
32. Research paper entitled, 'Therapeutic value of 25-OH-cholecalciferol in the treatment of chronic arthritis in Chikungunya- A virgin application' was presented at the International conference on 'New Horizons in Biotechnology' (November 21-24, 2011, Trivandrum, INDIA page no. 251,Abstract no MB-28.).
33. Research paper entitled, 'Study of prevalence of *Salmonella* and *Shigella* during endemic outbreak of diarrhoea in Pune city was presented by the coauthor at 'International conference of Microbial Biotechnology for sustainable development', Punjab University Punjab (Nov. 3 to 6 2011)
34. Research, paper entitled 'Study of Potential Pathogens in processed and unprocessed milk sample from Pune region' was presented by coauthor in the MICROCON 2011, XVII Maharashtra Chapter conference of Indian Association of Medical Microbiologist dt. Sept. 22-24, 2011 at Bharati Vidyapeeth (P-48 Pg. No. 152), Deemed University, Medical College, Pune.
35. Research paper entitled, 'Determination of potability of borewell water available in Pune city' was presented by coauthor in the MICROCON 2011, XVII Maharashtra Chapter conference of Indian Association of Medical Microbiologist dt. Sept. 22-24, 2011 at Bharati Vidyapeeth (P-47 Pg. No. 152), Deemed University, Medical College, Pune.
36. Research paper entitled, 'Checking of abundance of *Salmonella* and *Shigella* on vegetables sold in Pune region' was presented by coauthor in the MICROCON 2011, XVII Maharashtra Chapter conference of Indian Association of Medical Microbiologist dt. Sept. 22-24, 2011 at Bharati Vidyapeeth (P-49 Pg. No. 153), Deemed University, Medical College, Pune.

37. The Research paper entitled, 'Probiotics to alleviate Irritable Bowel Syndrome : A case study' was presented by the Coauthor at 'International Conference on Biotechnology for Better Tomorrow (BTBT-2011)' on Feb. 6 to 9 2011, at Dr. Babasahib Ambedkar Marathawada University, Aurangabad, Maharashtra, INDIA. (Page No. 49, OMM-12)
38. Research paper entitled, 'Study of IgM, IgG and IgA by Nephelometry technique in the patient of Irritable Bowel Syndrome following probiotic therapy' was presented by coauthor at 51st AMI Conference held at Birla Institute of Technology Mesra, Ranchi, INDIA – Dec. 14-17, 2010 (Pag. No. 286, MM-30)
39. Research paper entitled, 'Study of Probiotics in the treatment of Irritable Bowel Syndrome' was presented by the coauthor at 51st AMI Conference held at Ranchi INDIA. Dec. 14-17-2010 (Page No. 285, MM.27)
40. The Research paper entitled, 'Study of Tissue Transglutaminase in the patient of Irritable Bowel Syndrome following therapy of Probiotics' was presented by the coauthor at 51st AMI conference held at Ranchi, INDIA. (Dec. 14-17 2010, Page No. 279, MM-17)
41. The Research paper entitled, 'Study of endomycelial antibody IgA in the patient of Irritable Bowel Syndrome' was presented by the coauthor at 51st AMI conference held at Birla Institute of Technology-Mesra, Ranchi, INDIA- (Dec. 14-17, 2010, Page No. 279, MM-16).
42. Research paper entitled, 'Effect of herbal extract on Thrombocyte count in HIV-1 (C-stracin) infected individuals" was presented at "National Conference on new frontiers in herbal and synthetic drug studies" dated 14th to 16th Jan 2010, held at Abeda Inamdar College, Pune (Page No. 59). **The paper bagged 'Best Research paper award .**
43. Research paper entitled, 'Immunomodulatory and antiviral effects of herbal extract in HIV –I (C-strain) infected individuals' was presented at 'National Conference on new frontiers in herbal and synthetic drug studies' dated 14th to 16th Jan 2010, held at Abeda Inamdar College, Pune (Page No. 59).
44. Research paper entitled, 'Evaluation of Probiotics in the Patient of Irritable Bowel Syndrome' has been presented at 50th Annual conference of Associations of Microbiologist of INDIA, NCL, Pune (MM-002, Pg. 265, 15-18th Dec. 2009)

45. Research paper titled ‘Immunomodulating effects of herbal extracts on the CD4 subset in the HIV-1 (C-strain) infected individuals’ has been presented at 50th Annual conference of Associations of Microbiologist of INDIA, NCL, Pune (MM-001, Pg. 265, 15-18th Dec. 2009)
46. 35. Research paper titled ‘Study of calibration parameters of flow cytometric tools during antiretroviral therapy’, has been presented at 49th Annual conference of Associations of Microbiologist of INDIA, University of Delhi, Nov. 18-20-2008
47. Research Paper titled ‘Clinical trials of *Wagatia spicata* Dalz, *Chlorophytum barivilianum*, *Withania*, *Somnifera*, *Picrorrhiza kurroa* and patented herbs in HIV (c-strain) infected Individuals’, has been presented at 49th Annual conference of Associations of Microbiologist of INDIA, University of Delhi, Nov. 18-20-2008.
48. Research paper titled ‘Study of cellular parameters in HIV-1 (c-strain) infected individuals following herbal therapy’, has been presented at 49th Annual conference of Associations of Microbiologist of INDIA, University of Delhi, Nov. 18-20, 2008.
49. Presented a research paper titled : “Study of Immunomodulating, Biochemical and antiviral Properties of *Phyllanthus reticulates*, *Tinospora cordifolia*, *Chlorophytum barivilianum*, *Wagatia spicata* Dalz and two other patented Novel Herbs in The HIV-1 (C-Strain) infected individuals”, at 34th Indian Immunology Society Conference-16th–18th December, 2007. Organized by : National AIDS Research Institute , Pune (Abstract No. PS- 1-45, Page No. -70).
50. Presented a research paper titled, “Isolation of *Klebsiella pneumoniae* from the patient having haematuria & the study of drug resistance. (A.M.I. conference Abstract book page No. 102, MG-42, Dec. 6 to 8, 2006 Barkatulla Univ. Bhopal).
51. Presented a research paper titled : ‘Study of CD₄ count in HIV-1 (c-strain) infected individual following therapy of non toxic herbal extracts of *Phyllanthus reticulates*, *Tinospora cordifolia*, *Chlorophytum barivilianum*, *Wagatia spicata* Dalz and two other patented Novel Herbs’. (A.M.I. conference Abstract book Page No. 86, MG-11, Dec. 6 to 8, 2006 Barkatulla Univ. Bhopal). **The paper bagged best research paper award in Molecular biology section.**
52. Presented a research paper titled : “Study of absolute CD₄- court in the HIV-1 (C-strain) infected individual following therapy of non-toxic herbal extract of *Phyllanthus reticulates*, *Tinospora cordifolia*, and two other patented Novel Herbs was presented by the co-author at 46th AMI conference Osmania University Hydrabad. (Dec. 8 to 10-2005) (Abstract Book Page No. 120 Abstract No. Med-01).

53. Research paper titled “study of viral load & thrombocyte count in the HIV-1 (c-strain) infected individual following therapy of nontoxic herbal extracts”, was presented by the co-author at 46th AMI Conference Osmania University Hyderabad (Dec. 8-10-2005) (Abstract Book Page No. 146, Abstract No. Med-66)
54. Presented a research paper titled : “Study of absolute CD₄ count in the HIV-1 (c-strain) infected individuals following therapy of the non toxic herbal extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia*, and two other Novel drugs” was presented by the co-author at “Indo-Australian conference on biotechnology in infectious diseases” at Kasturba Medical College, MANIPAL (Dated March 1-3, 2005). Abstract-P-81, Page No. 113.
55. The Research paper titled “Study of Plasma Homocysteine count in the HIV-1 (c-strain) infected individuals following therapy of the non toxic herbal extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs” was presented by the co-author at “Indo-Australian conference on biotechnology in infectious diseases” at Kasturba Medical College, MANIPAL (dated March 1-3, 2005). Abstract P-82-Page No. -114.
56. Research paper titled “Study of thrombocyte & viral load in the HIV-1 (c-strain) infected individual following therapy of nontoxic herbal extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs”, was presented by the co-author at “Indo-Australian conference on biotechnology in infectious diseases” at Kasturba Medical College, MANIPAL (dated March 1-3, 2005). Abstract P-83-Page No. -115.
57. Research paper titled “Study of thrombocyte count in the HIV-1 (c-strain) infected individual following therapy of nontoxic herbal extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs”,(Advanced Biotech, Page No. 19, Volume – 111, issue 7, January 2005). The paper was discussed by a co-author at a symposium on molecular basis of disease (dated 8-9, January-2005) at Indian Institute of Technology, Madras (IITM).
58. Published a research paper titled : “Study of absolute CD₄ count in the HiV –C-strain) infected individual following therapy of the non toxic herbal extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs”, (Advanced Biotech, page No. 18 & 19, volume – 111, issue 7, January 2005). The paper was discussed by a co-author at a symposium on molecular basis of disease (dated 8-9, January-2005) at Indian Institute of Technology, Madras (IITM).

59. Presented research paper titled “Study of Plasma Homocysteine in the HIV-1 (c-strain) infected individual following therapy of the non toxic herbal extract of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs” Abstract MPM-4, Page No. 118, November 23-25, 2004, at the 45th AMI conference, Microtech 2k4, National Dairy Research Institute, Karnal – 132001 (Haryana).
60. Presented research paper titled “Study of absolute CD₄ count in the HIV-1 (c-strain) infected individual following therapy of the non toxic herbal extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs” “Abstract MPM-6, Page No. 119, November 23-25, 2004 at the 45th AMI Conference, Microtech 2k4, National Dairy Research Institute, Karnal – 132001 (Haryana).
61. ‘Isolation and Characterization of laboratory fungi’. Abstract Eco-10, Page No. 29, Nov. 23-25,2004, presented at the 45th AMI Conference Micro-tech 2 k-4, National Dairy Research Institute, Karnal-132001 (Haryana).
62. Presented research paper titled “Study of absolute CD₄ count and plasma homocysteine in the HIV-1 (c-strain) infected individual following therapy of the non toxic extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs” (Ref. – Abstract No. 4906-ASM 104th GENERAL MEETING, Paper No. T-028, Page No. 143 of program book), was presented at the ASM General Meeting held at New Orleans, USA , dated 25th May-2004 (May 23-27, 2004)
63. Presented research paper titled, “Reactivity p-24 antigens in HIV-1 infected individuals following long term ayurvedic therapy” at 44th annual conference of A.M.I. (Page No. 266, abstract book 12-14 Nov. 2003, Dharwad-Karnataka and **got the best research paper award in immunology and medical session.**
64. Presented research paper titled “Study of absolute CD₄ count in the HIV-1 infected individual following therapy of the non toxic extracts of *Phyllanthus reticulatus*, *Tinospora cordifolia* and two other novel drugs”, at 44th annual conference of A.M.I. (Page No. 262, abstract book Nov. 12-14, 2003, Dharwad-Karnataka.
65. Presented research paper titled “study of viral load, CD₄, count and opportunistic infections in the HIV-1, infected individuals” at 43rd annual conference of A.M.I. (MVM-30, Page No. 75, Abstract-book December, 11-13, 2002 HISAR).
66. Presented research paper titled” Formulation of modified coriander seed agar medium” 43rd annual conference of A.M.I. (MBT-61, Page No. 128-Abstract-book, December, 11-13, 2002) HISAR.

67. Co-author has presented the research paper titled, "Growth study of *Penicillium chrysogenum* in coriander broth medium", (MBT-60, Page No. 128) at 43rd Annual conference of A.M.I., December 11-13, 2002, HISAR.
68. Co-author has presented the research paper titled "Study of nutrient utilization in coriander seed broth" by the fungus *Penicillium chrysogenum*" at 43rd annual at 43rd annual conference of A.M.I. December, 11-13, 2002 HISAR (MBT-59, Page No. 127)
69. Co-author has presented the research paper titled, "Formulation of fungal growth medium" at 43rd annual conference of A.M.I. December, 11-13, 2002 HISAR (MBT -58 PAGE No. 127)
70. Co-author has presented the research paper titled, "Study of fungal pigmentation on newly formulated medium and its comparison with respect to traditional fungal medium" at 43rd annual conference of A.M.I., December, 11-13, 2002, HISAR (MBT – 62, page no. 129)
71. Co- author has presented the research paper titled "Use of *Daphnia magna* as bioindicator of water pollution." (EMB – 23, page no. 152) at 43rd annual conference of A. M. I., December, 11–13 2002 HISAR.
72. Co- author has presented the research paper titled "Death rate of *Daphnia magna* as marker for toxic pollutants in water." (EMB – 24, page no. 152) at 43rd annual conference of A.M.I., December, 11–13, 2002 HISAR.
73. Co-author has presented the research paper titled "Comparative study of *Bacillus thuringiensis israelensis* H-14 formulations with respect to its mosquitocidal activity (BC-12, page no. 169, at 43rd annual conference of A.M.I., December, 11–13, 2002, HISAR).
74. Presented research paper titled, "Study of thrombocyte count in the HIV-1 infected individuals." At international conference on HIV / AIDS (16-19 December 2001, Mumbai, India.)
75. Presented research paper titled, "Formulation of enrichment medium for *Cladosporium oxysporum* at 42nd AMI Conference, Gulbarga (9-11 November 2001).
76. **Oral presentation** of the research paper titled, "Study of Absolute-CD₄ Count in the HIV-1 infected individuals following therapy of herbal extracts"– at 42nd AMI conference, Gulbarga (9-11 November 2001)

77. Co- author has presented the research paper titled, “Study of thrombocyte – count and absolute – CD₄ Count’ in the HIV- 1 infected individuals following therapy of herbal extracts” – at 41st AMI conference, Jaipur, November, 25-27, 2000.
78. Presented a research paper titled “Effect herbal extracts on the CD₄ & CD₈ antigens and study of physical parameters in the HIV infected individual.” At International Conference on Microbial biotechnology, trade and public policy, Hyderabad, in the period of 15th to 17th July 2000.
79. Presented a research paper titled, “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” at 40th Annual A. M. I. Conference, **Bhubaneswar, January, 22-24, 2000. This paper bagged best research paper award**
80. Presented a research paper titled, “Effect of Sodium taurocholate and other inorganic compounds on spore germination of ” *Cladosporium oxysporum*” at 39th Annual, A.M.I. conference, Mangalore (December, 5-6, 1998).

EXTENSION WORK

- 1) Delivered the lecture on ‘Socio economic impact of AIDS’ at the function organized by ‘FRIEND’S INTERNATIONAL , USA’ at Sahitya Parishad Pune on 6th September 2012
- 2) Completed pilot study regarding possible transmission of diseases from State Transport Vehicles on request of Depot Manager Swargate Bus Depot ,Pune , with the reference number RP/ASTHA/SWAR/PRATHA/1092 Dt. 11/7/2012

- 3) Delivered the lecture on ‘ Beneficial and Harmful Microorganisms’, at ‘Dagdusheth Halwai Trust’s Children Sanatorium, Kondhawa,Pune. The lecture was organized On Sunday 4-03-2012.
- 4) Published health article in the Marathi magazine named “Smaranika 2000’ by Late Rajaram Tukaram Bhoite Smruti Arogya Prathishthan, Baramati dt. 04/02/2001
- 5) Published health article in the Marathi magazine named “Arogyita”, April 2007, by lynxeyedivisions health publisher.
- 6) Written various newspaper articles in newspaper like Lokmat, Aikya etc. The newspaper like Sakal, Tarun-bharat, Kesari, Indian Express facilitated dissemination of scientific information.
- 7) In associations with former additional director of Maharashtra State AIDS control society (MSACS), Dr. S.S. Narvekar, recommended suggestions to Government of INDIA for amendment of ART guidelines.
- 8) In associations with National AIDS Research Institute (NARI) Pune, implemented AIDS counseling programme.

PATENTS (10) AND TECHNOLOGY TRANSFER (1)

Sr. No.	Academic Year	Title of the patent	Type of the patent	Patent Application	Date of Filing	Date of Publication	Status (Registered)
---------	---------------	---------------------	--------------------	--------------------	----------------	---------------------	---------------------

			(National/ International)	Number			/ Granted)
1	2005-06	Invention of herbal drug against HIV infection/ AIDS	National	1512/MUM/2005	07/12/2005	13/01.2006	Objections Recorded Under Examination
2	2009-10	Invention of Immunomodulating Agent Against HIV infection/AIDS	National	2326/MUM/2009	07/10/2009	18/11/2011, Issue No. 46/2011, page no 19980, The Patent Office Journal,	First Examination Report filed.
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	13/03/2015, ISSUE NO.11/2015, PG. No.28440	Registered and Under Examination
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	13/03/2015, ISSUE NO.11/2015, PG. No.28443	Registered and Under Examination
5	2012-13	'Novel product obtained from <i>Chlorophytum borivilianum</i> , <i>Piper longum</i> , <i>Picrorrhiza kurroa</i> , by using innovative steps and	National	1634/MUM/2013	06/05/2013	13/03/2015, ISSUE NO.11/2015, PG. No.28444	Registered and Under Examination

		the unique blending process for enhancement of spermatogenesis process'					
6	2012-13	'Invention of <i>Chlorophytum borivilianum</i> derived product having distinct properties with respect to enhancement of spermatogenesis process.	National	1635/MUM/2013 A	06/05/2013	08/05/2015, ISSUE NO.19/2015,PG. No.33581	Registered and Under Examination
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	22/05/2015, ISSUE NO.21/2015,pg.No.35070	Registered and Under Examination
8	2017-18	Column chromatography	National	296390, CBR No 15996	03/08/2017	Design Patent	Registered and First Examination report is issued.
9	2017-18	Cylindrical Sanitary Pad Incinerator	National	298132 CBR No. 19257	05/10/2017	Design Patent	Registered and First Examination report is issued.
10	2017-18	Multiunit aseptic Chamber	National	CBR No.	17/11/2017	Design Patent	Registered and First

							Examination report is issued.
--	--	--	--	--	--	--	-------------------------------

PATENT APPROVAL

Patent application entitled ‘Invention of herbal drug against HIV Infection / AIDS’ is approved by ‘National Biodiversity Authority’, Chennai, Tamil Nadu, India vide approval Letter No. NBA/Tech. Appl/9/255/09/09-10/1878 dt. 12/08/2010.

SEMINARS ATTENDED / SYMPOSIA ATTENDED

- 1) Impact of pollution on Biosphere, Duration 11th & 12th Feb. 2000, organized by Y. M. College, Pune - 411038.
- 2) Emerging technologies in Life Sciences dt. 16th Feb. 2002, organized by Y. M. College, Pune - 411038.
- 3) Recent Trends in Bioinformatics dt. 1st Oct. 2002, organized by Y. M. College Pune – 411038.
- 4) Biodiversity, perspectives and challenges in 21st Century dt. 11th Oct. 2006, organized by Y. M. College, Pune – 38.
- 5) ‘Symedin 2009’ a symposium on ‘Medical Instrumentation 2009’ dt. 31st Jan. & 1st Feb. 2009, organized by Government College of Engineering, Pune.
- 6) UGC sponsored Symposium on ‘Entrepreneurship :A Gateway for Biologists 2015, 22nd Dec. 2015, organized by BVDU Yashwantrao Mohite College of Arts ,Science and Commerce , Pune 38.

- 7) Symbiosis School of Biomedical Sciences Organized Symposium on ‘Emerging Trends in Biomedical Sciences’, 27th Jan. 2016.
- 8) Microbial Culture Collection Pune organized two day workshop on ‘Nomenclature of Archaea and Bacteria held during 9-10 Sept. 2016

AWARDS

I) Awards conferred by scientific communities.

- 1) Presented a research paper titled, “Effect of HIV replication on the population of WBCs and the reactivity of p-24 antigen in the infected individuals following long term ayurvedic therapy” at 40th Annual A.M. I. Conference, **Bhubaneswar, January, 22-24, 2000. This paper bagged best research paper award.**
- 2) Presented research paper titled, “Reactivity p-24 antigens in HIV-1 infected individuals following long term ayurvedic therapy” at 44th annual conference of A.M.I. (Page No. 266, abstract book 12-14 Nov. 2003, Dharwad-Karnataka and **received the best research paper award in immunology and medical session.**
- 3) Presented a research paper titled : “Study of CD₄ count in HIV-1 (c-strain) infected individuals following therapy of non toxic herbal extracts of *Phyllanthus reticulates*, *Tinospora cordifolia*, *Chlorophytum barivilianum*, *Wagatia spicata Dalz* and two other patented Novel Herbs. (A.M.I. conference Abstract book Page No. 86, MG-11, Dec. 6 to 8, 2006 Barkatulla Univ. Bhopal). **The paper bagged best research paper award in Molecular biology section.**
- 4) Research paper titled ‘Effect of herbal extract on Thrombocyte count in HIV-1 (C-stracin) infected individuals” was presented at “National Conference on new frontiers in herbal and synthetic drug studis” dated 14th to 16th Jan 2010. The paper bagged ‘Best Research paper award .
- 5) Received the award from FRIEND’S INTERNATIONAL , USA for exemplary contribution in the field of AIDS research.(6th September 2012)

- 6) Certificate of BEST INTERJECTOR during ASM Virtual Workshop on Scientific Writing and Publishing organized by The American Society for Microbiology at Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha, India.(22nd November 2012)

II) Awards conferred by community

- a) For social activities by Sangar Community, Pune 25/12/1999.
- b) For social activities by Bhusari Colony, Munch Pune (2005)
- c) For AIDS Research, by Dilasa Sanstha, Pune dt. 16/10/2007.
- d) 'Best Teacher Award' by Pune Municipal Corporation dt. 5/9/2013

MEMBERSHIPS

- 1. Member of American Society for Microbiology with the membership number 55910459
- 2. Member of Association of Microbiologist of India
- 3. President of Applied Research Institute, Pune.
- 4. Member of International Human Right Justice Federation.

RESEARCH PROJECT

Sr.No.	Title	Agency	Period	Amount	Status
--------	-------	--------	--------	--------	--------

				Mobilized	
1	Study of Immunomodulating and antiviral properties of plants	UGC New Delhi	16/03/2011 to 16/03/2013	Rs. 1,35,000	Completed in the month of Feb.2013.

Dr. BALLAL B. B.