

Dr. Vinod Singh, PhD

NAME : **Dr. Vinod Singh**
ADDRESS : Department of Microbiology
Barkatullah University
Bhopal (M.P)
INDIA
DATE OF BIRTH : (08.02.1963)
DESIGNATION : Associate Professor
DEPARTMENT : Microbiology
INSTITUTION : Barkatullah University
Bhopal (M.P) 462026
India



ACADEMIC QUALIFICATIONS

Ph.D (1993) Life Sciences (**Immunology**) Faculty of Life Sciences, C.S.J.M.University, Kanpur (At King Georges Medical College Lucknow as Approved Center)
M.Sc. (1985) Life Sciences with 71.4% (**Immunology and Clinical and Nutritional Biochemistry as specialization with Distinctions**) from Institute of Life Sciences, C.S.J.M University, Kanpur
B.Sc. (1982) Biology Group with 62.7%, C.S.J.M University, Kanpur

DOCTORATE Study of Humoral and Cell Mediated Immune Response against *E. histolytica* infections in Patients of Immuno Arthritis

SPECIALIZATION

MICROBIOLOGY & IMMUNOLOGY (INFECTION & IMMUNITY)

AWARDS AND MERITS

1. Secured second position at Institute of Life sciences, Kanpur University, for MSc Life Sciences.
2. Received RAJPAL BEST PAPER award at 3rd conference of Society for Immunology and Immunopathology 2007.
3. Received Best Teacher Award of year 2007 by Gwalior Vikas Samitee in the Area of Life Sciences.
4. Nominated as Co chairperson for Immunomodulation session at 2nd SIIP conference held at GB Pant university of Agriculture and Technology at Pant nagar.
5. Nominated as Co-chairperson for immunity and infection session at 2nd SIIP conference held at Central JALMA institute of Leprosy, Agra.
6. Nominated as Panelist young scientist award for 2nd SIIP conference held at Central JALMA institute of Leprosy, Agra.
7. Reviewer of Journal of Rheumatology published by British Society of Rheumatologists of U.K. and International Dairy Research Journal of Denmark in 2006 and 2007.
8. Vice Chancellor nominee for the various academic bodies of Microbiology discipline of Jiwaji University, Gwalior.
9. Nominated Reviewer for the Project Evaluating Committee of Department of Biotechnology, Ministry of Science and Technology, Govt. of India New Delhi.
10. Joint Secretary of Society for Immunology and Immunopathology (S.I.I.P) of India.
11. Executive member of Indian Immunology Society and International Union of Immunological Society (I.U.I.S)
12. RDC Expert Member of Department of Biotechnology of Bundelkhand University, Jhansi for year 2009.
13. Expert Member of Board of Studies (BOS) of Department of Biochemistry and Biotechnology of RML Avadh University of Faizabad for Year 2009.
14. Reviewer of International Journal for Immunopharmacology and Immunopathology, Journal of Food and Nutrition, Journal of Digestive Diseases in 2009.

15. Nominated as an Associate Editor of Journal of Medicinal Plants and Research (JMPR) published by Academic Press, Nairobi.
16. Nominated as an Associate Editor for Journal for Hematological Reviews and Research published by Dove Press, Auckland.
17. Invited to Chair a session on Immunomodulation at the World Conference on Cellular and Molecular Biology going to be held at Dept of Biotechnology at DAV University, in Nov 2009 at Indore.
18. Invited to deliver lecture at Current Medical Education in Nov 2009 at Dept of Biochemistry at M.S. University, Baroda.
19. Nominated member of International Society of Infectious Diseases by American Society of Microbiology (ASM).
20. Nominated as Chairman of Board of studies of Microbiology subject of Barkatullah University, Bhopal.
21. Nominated as member of Research Degree Committee of Microbiology subject of Barkatullah University, Bhopal.
22. Currently Heading the Department of Microbiology of Barkatullah University, Bhopal since 17 June 2009.
23. Nominated as one of the reviewer of International Journal of “BENEFICIAL MICROBES” and Journal of Medicinal Plant and Research (JMPR) recently on 2010 published from Netherland.
24. Received YEAR OF THE SCIENTIST AWARD – 2011 at Allahabad University given by Society of Biological Sciences.
25. Chaired the Session of Environment at 1st National Conference on Environmental Protection and Techniques held at Environmental Biology department of A.P.S University, Rewa on 23rd and 24th March 2012.
26. Expert member of Research Degree Committee of Biotechnology subject of A.P.S.University, Rewa.
27. Expert member of Research Degree Committee of Microbiology subject of D.A.V University, Indore.

28. Nominated one of the member of Human Institutional Ethical Committee(IEC) of Govt Medical College,Siddartha Nagar(U.P.)
29. Nominated one of the member of Human Institutional Ethical Committee(IEC) of A.I.I.M.S,Bhopal(M.P)

ADMINISTRATIVE EXPERIENCE: 3 YEARS

1. Currently Head of the Department of Microbiology, Barkatullah University, Bhopal.
2. Chairman Research Degree Committee (R.D.C) of Microbiology subject of Brakatullah University, Bhopal and its associated colleges.
3. Chairman Board of Studies (B.O.S) of Microbiology subject of Brakatullah University, Bhopal and its associated colleges.
4. Chairman Examination Committee of Microbiology subject of Brakatullah University, Bhopal and its associated colleges.
5. Warden Sanjay Gandhi Boys Hostel of Barkatullah University, Bhopal.
6. Joint Proctor Barkatullah University, Bhopal.

RESEARCH EXPERIENCE

More than **27** years in the area of Microbiology & Immunology

1. **At A.I.I.M.S New Delhi: As Junior Research Fellow-1stMay1986-30 September1986.** In ICMR project entitled "Immunospecificities.... drug induced Anti Nuclear Antibodies" at Clinical Immunology Unit, Department of Medicine.
2. **At I.I.T.Kanpur: As Senior Research Assistant -6th October 1986 - 31st May 1988.** In Department of Electronic (DOE) project entitled "Effect of Acute and Chronic Microwave Radiations of Immune System of Rabbits" at Immunology Lab. of Pathology of Medical College, Kanpur.

3. **At I.I.T Kanpur: Senior Project Associate (S.R.O) -16th Aug 1988-16July1989.**In Department of Environmental Engineering's International Development Research Council, Canada (IDRC) project entitled "Development of Low Cost Water Filter Against Human Enteric Viruses".
4. **At A.I.I.M.S New Delhi: As an Assistant Research Officer (A.R.O) -24th July1989 - 20th July1990:** At Cardio-Neuro Center Cardiology department's ICMR project entitled "Study of Clinical, Immunological and Virological in Dialated Cardio Myopathic Patients".
5. **At King George's Medical College University: As Senior Research Fellow-8th August -1990- 30th November 1992.** At Clinical Immunology and Rheumatology Services of Medicine department's ICMR project entitled "Study of Arthritis associated with serological evidence of *E. histolytica* infection".
6. **At Central Drug Research Institute Lucknow: As Post Doctoral Fellow (Research Associate) - 5th April 1994- 30th July 1996.**At division of Microbiology and Parasitology in joint project on "Effect of gamma interferon on Malaria parasite" of C.S.I.R. and Walter Reed Army Research Institute (WRARI), U.S.A.
7. **At V.M.I Dental College, Sitapur: As an Associate professor - 1st August 1996- 9th October 1997.** At Clinical Biochemistry Department to teach BDS students.
8. **At College of Life Sciences, Cancer Hospital and Research Institute Gwalior: As an Assistant Professor - 10th November 1997- 31st July 2004:** At Department of Applied Microbiology.
9. **At College of Life Sciences, Cancer Hospital and Research Institute Gwalior: As Sr. Assistant Professor – 1st August 2004 - 14th March 2007:** At Department of Applied Microbiology.
10. **At Barkatullah University, Bhopal: As Reader- 15th March 2007-14th March 2010:** At Department of Microbiology.
11. **At Barkatullah University, Bhopal: As An Associate Professor- 15th March 2007 till date:** At Department of Microbiology.

TEACHING EXPERIENCE: More than 17 years

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1. M. Sc. Human Biology students at Department of Microbiology of A.I.I.M.S, New Delhi from 24th July 1989- 20 July 1990.
 2. B.D.S students at Clinical Biochemistry Department of V.M.I. Dental College, Sitapur from 1st August 1996 to 9th October 1997.
 3. M.Sc. students of Applied Microbiology students at Applied Microbiology department of College of Life Sciences, Cancer Hospital and Research Institute, Gwalior, from 10th November 1997 to 14th March 2007.
 4. M.Sc students of Microbiology at Department of Microbiology, Barkatullah University, and Bhopal from 15th March 2007 till date.

Courses taught and Teaching

- a) **Pathogenic Bacteriology, Medical Virology, Parasitology, Food Microbiology and Immunology** to M.Sc Microbiology students.
- b) **Microbiology Immunology** to M.Sc Biochemistry students.
- c) **Pathogenic-bacteriology & Serology** to Medical Lab Technology students.
- d) **Parasitology** to students of PG diploma in Clinical Pathology and Diagnostic Technology.
- e) **Bacteriology, Virology and Parasitology** to B.Sc. Nursing students.
- f) **General Microbiology and Immunology and Biomolecules** to M.Sc students of Microbiology

VISITING FACULTY & EXAMINERSHIP

1. Visiting Faculty of Basic Immunology Course of M.Sc. Biotechnology course of Center for Biotechnology of APS University, Reewa and Virology and Parasitology of M.Sc Biomedical Sciences of Institute of Biomedical Sciences, and Department of Microbiology of Bundelkhand University, Jhansi.

2. Visiting Faculty of Immunology and Immunotechnology course of M.Sc. Biochemistry of Center for Biochemistry, APS University, Rewa.
3. Visiting Faculty for Medical Microbiology at School of Biotechnology of JNU, New Delhi.
4. Visiting Faculty of Infectious Biology of Environmental Biology course of Dr. B.R. Ambedkar University, Lucknow.

RESEARCH STUDENTS GUIDED: 29 PG

1. Incidence of Nosocomial infection in Cancer patients a dissertation of Manoj Baria for undergraduate Microbiology student.
2. Identification & characterization of *E. coli* from cancer patients and evaluation of their antimicrobial susceptibility pattern by Aruna Pathak PG student of Microbiology of BK University, Jhansi.
3. Identification & characterization of oral micro flora from cancer patients and evaluation of their antimicrobial susceptibility pattern by Sarita Indorkar PG student of Microbiology of Barkuttalah University, Bhopal.
4. Identification & characterization of pathogenic bacteria of enterobacteriaceae from patients and evaluation of their herbal antimicrobial susceptibility pattern by Neeta Shrivastav PG student of Microbiology of Jewaji University, Gwalior.
5. Identification & characterization of Pathogenic bacteria from cancer patients and evaluation of their herbal antimicrobial susceptibility pattern by Sushma Nigam, PG student of Microbiology Jeewaji University, Gwalior.
6. Study of Bioimmunological parameters in Elderly patients of Osteoarthritis, by Pradeep Sharma, student from Gajaraja Medical College, Gwalior.
7. Study of Antimicrobial properties of Synthetic and Natural compounds against Oral Microflora by Preeti Sharma PG student of Microbiology of Jiawaji University, Gwalior.
8. Identification & characterization of *E. coli* from various sites and evaluation of their antimicrobial susceptibility pattern by Tarunum Qureshi PG student of Microbiology of BK University, Jhansi.

9. Identification & characterization of Drug Resistant Oral Microflora from various sites and evaluation of their antimicrobial susceptibility pattern by Tej ram PG student of Microbiology of BU, Bhopal.
10. Identification & characterization of Drug Sensitive Oral Microflora from various sites and evaluation of their antimicrobial susceptibility pattern by Mukesh Kuswah PG student of microbiology of BU, Bhopal.
11. Study of Correlation of Lipid Profile to Patients of Hypothyroidism by Dushyant Chaturvedi, B.tech Student of Biotechnology of MS Patil University, Maharashtra.
12. Study of Correlation of Total Cholestrol Profile to Patients of Hypothyroidism by Ranjeeta Raghuvanshi M.Sc Student of BU Bhopal.
13. Study of Correlation of Triglycerides Profile to Patients of Hypothyroidism by Preeti Sharma M.Sc Student of BU Bhopal.
14. Drug Susceptibility pattern against Hospital Associated Pathogens by Neha Tiwari M.Sc students of UTD Microbiology.
15. Isolation, Identification and Characterization of microorganism and antimicrobial susceptibility against Upper Respiratory Infections (URT) by Nishi Yadav of UTD Microbiology.
16. Pathogenesis and antibiotic against oral inflammation and dental carries by Renuka Sahu of UTD of Microbiology.
17. Isolation, Identification, Characterization and antibiogram agent against bacterial infections causing Urinary Tract Infection (UTI) by Girish Kumar of UTD Microbiology.
18. Isolation, Identification and Characterization of microorganism and antimicrobial susceptibility against Nasal Infections by Shruti Parashar of UTD Microbiology.
19. Isolation, Identification and Characterization of microorganism and Drug of Choice against Pyogenic Infections (URT) by Sujata Singh of UTD Microbiology.
20. Study of Therapeutic agents against causative agents of Otitis media by Reena Diwakar of UTD of Microbiology.
21. Isolation, Identification and Characterization of Lactobacilli and other microorganisms form Milk and Milk products by Varsha Sahu of UTD Microbiology.

22. The serum lipid concentration in patients of hypothyroidism correlation with stress by Binita Bharti of UTD Microbiology.
23. Comparative analysis of Biofilm development potential of Vancomycin resistant *Staphylococcus aureus* (VRSA) & Ciprofloxacin resistant *Staphylococcus aureus* (CIP-RSA) by Husain Saify of UTD Microbiology.
24. In vitro study of Biofilm formation by commensal and pathogenic strains of by Lalit Meshram of UTD Microbiology.
25. Molecular and antigenic characterization of drug sensitive and resistant microorganisms by Mohammad Azeem Baig of UTD Microbiology.
26. Efficiency of some Indian medicinal plants on skin microflora by Namrata Singh of UTD Microbiology.
27. Determination of antimicrobial susceptibility of *Candida albicans* by Rashmi Sahu of UTD Microbiology.
28. Effects of antimicrobial agents against fungal isolates from monuments of Bhopal by Ruchi Soni of UTD Microbiology.
29. Comparative analysis of genome & antigenic property of pathogenic bacteria by Nihan Khan of UTD Microbiology.

Ph.D. AWARDED: 04

1. Study of Molecular Diversity among Oral Microflora of Patients of Dental Infection by Sapna Kusawah.
2. Study of Anti Arthritogenic Characterization of Probiotics in Wistar Rats by Sarika Amdekar.
3. Study of Fe physiological stress in Blue Green Algae by Z. A. Bilal.
4. Study of Genomic and Antigenic Characterization Oral Cavity in Patients of Oral Infections by Deepak Diwedi.

Ph.D. STUDENTS REGISTERED: 06

1. Study of Antioxidative, Antimicrobial and Immunomodulatory property of herbal preparation (*Pyrostegia Venusta*). By Purabi Roy.
2. Study of Humoral and Cell Mediated Effect of Certain Herbal Compounds against *Mycobacterium tuberculosis* in Tubercular Patients: By Nishi Mishra.
3. Phylogenetic and Molecular Characterization of stress tolerant bacterial strains and their role in plant growth production by Sumit Yadav.
4. Study of Stress on Immunomodulation in Patients of Hypothyroidism: By Mayuri Khare.
5. Study of Humoral and Cell Mediated Immune response against Amoebic infection Triggered Rheumatoid Arthritis in Experimental animal Model: By Swati Bagde.
6. Evaluation of Changes in Microbial flora of Patients with Fixed Orthodontitis Appliances and Effect of Electrical and Manual Tooth Brushing on Colonization Oral Microflora: By Chandresh. K. Shukla

AREA OF INTEREST

Infection and Immunity

RESEARCH WORK & POPULAR ARTICLES PUBLISHED: 100

INTERNATIONAL PEER REVIEWED JOURNALS: PUBLISHED: 52

1. Effect of chronic microwave radiation on T-lymphocyte mediated immunity of rabbits: Nageshwari K.S, Rajvanshi V.S, Sarma K.S, Sharma M., Barathwal V., **Singh V., International Journal of Biometerology; Sept. (35) 1991; 91-95.**
2. Identification of Polymicrobial Infection from Necrotised Tumors; **Singh Vinod**, Jain Sudhir .K, Shrivastawa Archana., **Biomedical Research; 22, (3) (June) 2001.**
3. Immune Response to Leishmania: Paradox rather Paradigm: Tripathi Parul, **Singh Vinod** and Naik Sita; **FEMS Immunology and Medical Microbiology; November 2007 (51) 229-242.**

4. The Role of Nitric Oxide in Inflammatory Reactions: Tripathi Parul, Tripathi Prashant, Luv Kashyap and **Singh Vinod**; **FEMS Immunology and Medical Microbiology**; **December 2007 (51) 443-452.**
5. Molecular methods for identification and characterization of *Lactic acid Bacteria* (LAB): Mohania Dheeraj, Nagpal Ravinder, Kumar Manoj, bharadwaj Aarti, Jain Shalini, Marrota Francesco , **Singh Vinod**, Parkash Om and Yadav Hariom: **Journal of Digestive Diseases 2008;9,190-198.**
6. Microbial Interference and Gut Associated Immunity: **Vinod Singh**, Kiran Singh, Sarika Amdekar, Parul Tripathi and Hariom Yadav: **FEMS Immunology and Medical Microbiology**; **January 2008; (1) 34-37.**
7. Mukesh Yadav, Aarti Bhardwaj, Shalini Jain, Monica Puniya, **Vinod Singh**, Radha Tomar, Om Prakash Verma GBKS Prasad, F Marrota and Hariom Yadav. Biological and Medicinal Properties of Grapes and their Bioactive Constituents: An Update: **Journal of Medicinal Foods**; **12(3); 2009; 473-484).**
8. **Vinod Singh**, Kiran Singh, Sarika Amdekar, Desh Deepak Singh, Parul Tripathi, Ganda L. Sharma & Hariom Yadav. Innate and specific gut-associated immunity and microbial interference. *FEMS Immunol Med Microbiol* 55 (**2009**) 6–12.
9. Andrew Keibel, **Vinod Singh** and Mahesh Sharma. Inflammation, Microenvironment and Immune system in Cancer Patients; (*Current Pharmaceutical Design* **2009**; 15:1949-1955.
10. H. Yadav, M. Yadav, S. Jain, A. Bhardwaj, **V. Singh** O. Parkash and F. Marotta. Antimicrobial property of a herbal preparation containing *Dalbergia sissoo* and *Datura stramonium* with cow-urine against pathogenic bacteria. *International Journal of Immunopathology and Pharmacology* **2009.**
11. Molecular Characterization of *Campylobacter jejuni* in raw and cooked poultry meat products from Northern India. Sharma, Gagan Chauhan, U. Kumari, **Singh, Vinod**, Rathore, R. Swaroop, Chauhan, R. Swaroop *Journal of Food and Agriculture Sciences* March 2009.
12. Immunoglobulin profile of *Schistosoma mansoni* infected patients from Central India: **Vinod Singh**, Desh Deepak Singh, Vinod K Tiwari, Parul Tripathi and Rambir Singh

Journal of Immunology and Immunopathology 2009.

13. Sarika Amdekar, Deepak Dwivedi, Purabi Roy, Sapna Kushwah, **Vinod Singh**. Probiotics: multifarious oral vaccine against infectious traumas. *FEMS Immunology Medical Microbiology* (2010); 58 (3): 299-307.
14. Sarika Amdekar, **Vinod Singh**, Rambir Sherawat, Poonam Sharma, Shivshankar Yadav, Avnish Kumar. Assessment of antiarthritic and immunomodulatory of *Lactobacillus casei* in collagen induced arthritis (CIA) experimental model. *International Journal of Integrative Biology* (2010); 9 (3): 141-147.
15. Amdekar S, **Singh V**, Roy P, Kushwaha S, Dwivedi D. In vitro antibacterial activity of *Lactobacillus casei* against enteropathogens. *Webmed Central MICROBIOLOGY* 2010; 1(9):WMC00698.
16. Amdekar S, **Singh V**, Singh R, Dwivedi L, Sharma P, Goyal D, Kumar A. Antiinflammatory, antimicrobial and immunomodulatory properties of *Lactobacillus casei* against Enteropathogenic *Escherichia coli*. *Webmed Central MICROBIOLOGY* 2010; 1(10):WMC0087.
17. **Singh V**, Amdekar S, Verma O. Ocimum Sanctum (tulsi): Bio-pharmacological Activities. *Webmed Central PHARMACOLOGY* 2010; 1(10): WMC001046.
18. Singh P, **Singh V**. Psychoneuro Immunology (p.n.i) Of Stress. *Webmed Central IMMUNOLOGY* 2010; 1(10): WMC001080.
19. **Singh V**, Wal N, Venkatesh V, Tandon R, Singh M, Singh R. Seropositivity Rates For Hepatitis B And C Viruses In A Tertiary Care Centre Of Northern India . *Webmed Central VIROLOGY* 2010; 1(11): WMC001197.
20. Sarika Amdekar, **Vinod Singh**, Rambir Singh, Poonam Sharma and Poonam Keshav. *Lactobacillus casei* reduces the inflammatory joint damage associated with collagen induced arthritis by reducing the Proinflammatory cytokines. *Journal of Clinical Immunology* 2011; 31(2): 147-154.
21. Purabi Roy, Sarika Amdekar, Avnish Kumar, **Vinod Singh**. Preliminary study of antioxidant property of flowers and roots of *Pyrostegia venusta* (Ker Gawl) Miers. *BMC Alternative therapy and Medicine* 2011; 11: 69.

22. Sarika Amdekar, **Vinod Singh**, Desh Deepak Singh. Probiotic therapy: Immunomodulating approach towards Urinary Tract Infection. *Current Microbiology* **2011**; 63 (5): 484-490.
23. Sarika Amdekar, **Vinod Singh**, Avnish Kumar, Rambir Singh, Poonam Sharma. Histopathology And Immunology Based Protective Property of *Lactobacillus acidophilus* In FCA Induced Arthritic Female Wistar Rats. *Inflammation Research* **2011**.
24. Deepak Dwivedi, Sapna Kushwah & **Vinod Singh**. Microbiological Aspects and Immunity Response of Bacteria Causing Pulpitis. *Nature proceedings* **2011**. doi:10.1038/npre.2011.5889.1.
25. Deepak Dwivedi, Rakesh Kumar Patidar, Sapna Kushwah, Tejram Kushwah, Mukesh Kushwah, Sarika Amdekar, **Vinod Singh**. Study of Molecular Mechanism of Antibiotic susceptibility against Polymicrobial Oral infection. *Nature Proceedings* 2010. hdl:10101/npre.2010.5291.1.
26. Bilal SF, Bhat A., Pramod PK, **Singh V**. Influence of Iron on Phosphate Metabolism in Cyanobacterium *Nostoc Caldicola*. *Applied Biological Research* **2010**: 12(2): 64-68.
27. Rakesh Kumar Patidar, Mithilesh Kumar Gupta, **Vinod Singh**. Virulence of *Enterococcus faecalis* and Impact of Genome wide approaches. *South Asian Journal of Experimental Biology* **2011** 1(1): 16-24.
28. Deepak Dwivedi, Tejram Kushwah, Mukesh Kushwah, **Vinod Singh**. Antibiotic susceptibility pattern against pathogenic bacteria causing Dental Caries. *South Asian Journal of Experimental Biology* **2011** 1(1): 31-35.
29. Desh D Singh, L K Dwivedi, Sarika Amdekar, **Vinod Singh**. The Immunoglobulin profiling of *Schistosoma mansoni* infected patients from Central India. *South Asian Journal of Experimental Biology* **2011** 1(5): 32-35.
30. Desh D Singh, L K Dwivedi, Sarika Amdekar, **Vinod Singh**. Toll like Receptors: The immunomediators of innate and acquired immunity and the targets of therapeutic concern. *South Asian Journal of Experimental Biology* **2011** 1(5): 45-51.
31. Desh Deepak Singh and **Vinod Singh**. In vitro sensitivity of amphotericin B, itraconazole and fluconazole-resistant against *Candida albicans*. *International Journal of Pharmaceutical Sciences and Research* **2011**; 2 (11): 2964-2968.

32. Purabi Roy, Sarika Amdekar, **Vinod Singh**, Avnish Kumar, Rambir Singh, Poonam Sharma. *In-vivo* antioxidative property, antimicrobial and wound healing activity of flower extracts of *Pyrostegia venusta* (Ker Gawl) Miers *Journal of Ethnopharmacology* **2012**; 140: 186-192.
33. Sarika Amdekar, Purabi Roy, **Vinod Singh**, Avnish Kumar, Rambir Singh, Poonam Sharma. Anti-inflammatory activity of *Lactobacillus* on carrageenan induced paw edema in male Wistar rats. *International Journal of Inflammation* **2012**; Article ID 752015.
34. Rakesh Kumar Patidar Ranjeeta Raghuwanshi, Preeti Sharma and **Vinod singh**. An Associative Investigation between TSH and Serum Lipid Concentrations in the Population of Bhopal, India. *International Journal of Pharmaceutical Sciences and Research* **2012**; 3 (4): 1112-1115.
35. Sarika Amdekar and **Vinod Singh**. Probiotics: For Stomach Disorders - An Evidence Based Review. *American Journal of Pharmatech and Research*. **2012**; 3 (4).
36. S. C. Narwadiya, U. L.Dhumne, K. N. Sahare, P. M. Tumane, V. G. Meshram, & **V. Singh**. Serum Protein Level Changes In Dots Administered Patients of Nagpur District: A Case Study. *Asian Journal of Experimental Biological Sciences*. **2012**; 3 (1) 251- 254.
37. Sarika Amdekar, Avnish Kumar, Poonam Sharma, Rambir Singh and **Vinod Singh**. *Lactobacillus* protected bone damage and maintained the antioxidant status of liver and kidney homogenates in female wistar rats. *Molecular and cell Biocemistry*. **2012**; 1354-1363.
38. Swati Bagde, Shruti Parashar, Rakesh Kumar Patidar and **Vinod Singh**. Study of antibiotic susceptibilty test of modern generation of drugs against upper respiratory tract pathogens. *International journal of Pharmaceutical Sciences and research*. **2012**; 2(10):1000-1007.
39. **Singh V**, Khare M, Bagde S and Patidar RK. Phytochemical potency of certain medicinal plants against some pathogenic microorgansims. *International Journal of Biology, Pharmacy and Allied Sciences*. **2012**; 1(8): 1057-1064.
40. Rakesh Kumar Patidar, Mithilesh Kumar Gupta, Deepak Dwivedi and **Vinod Singh**. *In Vitro* Biofilm Formation Potential and Antimicrobial Sensitivity of *Streptococcus*

- Mutans* Clinical Isolates. American Journal of PharmTech Research. **2012**; 2(3): 551-557.
41. Lalit Meshram, Rakesh Kumar Patidar, Mayuri Khare, Swati Bagde, Keertisheel N. Sahare and **Vinod Singh**. Comparative analysis between biofilm formation of commensal and pathogenic *Escherichia Coli* isolates. Asiatic Journal of Biotechnology Resources. **2012**; 3(10):1401-1407.
42. Sarika Amdekar, **Vinod Singh**, Avnish Kumar, Poonam Sharma and Rambir Singh. *Lactobacillus casei* and *Lactobacillus acidophilus* Regulate Inflammatory Pathway and Improve Antioxidant Status in Collagen-Induced Arthritic Rats. Journal of Interferon & Cytokine Research. **2012**; 0(0):1-8.
43. Desh D. Singh and **Vinod Singh**. Antimicrobial potential of two *Solanum* species used in folkloric medicine. Journal of Pure and Applied Microbiology. **2012**; 6(2):899-902.
44. Desh Deepak Singh, Sarika Amdekar, **Vinod Singh**. Probiotics: defenders of gastrointestinal habitats. Gastroenterology Insights. **2012**; volume 4:e22.
45. Antimicrobial activity of *mentha arvensis* against clinical isolates of human cariogenic pathogens- an in vitro study. Deepak Dwivedi., Gaurav Khandelwal, Rakesh Kumar Patidar and **Vinod Singh**. International Journal of Pharmaceutical Sciences and Research, **2012**; 3(5): 1355-1360.
46. Sahare KN, Anandhraman V, Meshram VG, Meshram SU, **Singh V**, Reddy MVR, Goswami K. Antifilarial Potential of *Butea monosperma* L. against microfilaria in vitro. International Journal of Pharm Tech Research. **2012**; 4(3): 1181-1184.
47. Swati Bagde, Neha Tiwari, Rakesh Kumar Patidar, Mayuri Khare and **Vinod Singh**. Determination of drug susceptibility pattern against nosocomial infection. International journal of Pharmaceutical Sciences and research, **2012**; 3(12): 5024-5028.
48. Mayuri Khare, Nishi Yadav, Rakesh Kumar Patidar, Swati Bagde and **Vinod Singh**. Antibiofilm assessment against upper respiratory tract infection causing bacteria. International Journal of Pharmaceutical Sciences and Research, **2012**; 3(12): 4827-4830.
49. Pradeep Sharma, Adil Rahman, K Jawad, **Vinod Singh**, Nishee Mishra and Himanshu Jain. Bone protective effects of estrogen hormone in knee osteoarthritic female patients. Biomedical Research. **2012**; 23(3):405-407.

50. Sarika Amdekar, **Vinod Singh**, Avnish Kumar, Poonam Sharma and Rambir Singh. Lactobacillus casei and Lactobacillus acidophilus regulate inflammatory pathway and improve antioxidant status in collagen induced arthritic rats. Journal of Interferon and Cytokine Research, **2013**; 33(1): 1-8.
51. **In press**: Keertisheel Sahare and **Vinod Singh**. In vitro antifilarial potential of Chloroform extract of leaves of *Vitex negundo* L. against *Setaria cervi*. Asiatic Journal of Biotechnology Resources; **2012**; IV (1).
52. **In press**: Swati Bagde, Mayuri Khare, Rakesh Kumar Patidar, **Vinod Singh**. Antimicrobial Properties and Characterization of phytoconstituents of the leaf extracts of some medicinal plants. Journal of Pharmacognosy and Phytochemistry. 2013.

COMMUNICATED: 01

1. *In - vitro* Antifilarial Activity of Ethyl Acetate Extract of *Vitex negundo* L. Leaves. Sahare KN & **Singh V**, (**Communicated in Asia Pacific Journal of Tropical Medicine 2012**).
2. Patidar, R.K., M.K., Gupta, **Vinod Singh**. 2012. Phenotypic Detection of Virulence traits and Antibiotic Susceptibility of Endodontic *Enterococcus faecalis* Isolates. *American Journal of Microbiological Research*.

NATIONAL JOURNALS (peer reviewed and indexed): 38

1. Disease modifying effect (DME) of Salazopyrin in seronegative spondylo arthropathies (SNSA). Das S.K, Mitra R, **Singh Vinod**, Pandeya S.N, Singh Ragini; Journal of Immunology and Immunopathology. **2000**, 2; 40-45.
2. In vitro susceptibility of new generation of antibacterial antibiotics against pathogenic bacteria; **Singh. Vinod**, Jain S.K.; Hindustan Antibiotics Bulletin; 41; **1999**, 51-53.

3. Molecular Chaperones and Cancer Vaccines; **Singh Vinod**, Jain Sudhir K, Shrivastawa Archana; Journal of Immunology and Immunopathology, **2001**;3:1-10.
4. Immunomodulating Impact of Environmental Factors in Pathogenesis of Lung Carcinoma: **Singh Vinod**, Chauhan Puneet singh, Agarwal Asha, Rajvanshi, Sriwastava; Journal of Immunology and Immunopathology, **2001**; 3:78-79.
5. Role of Sulphasalazine in patients of SNSA: Das S.K., Mitra R., Singh R., **Singh Vinod**, Pandeya S.N. Journal of Indian Rheumatology Association, **1993**.1;56-62.
6. Antimicrobial Activities of Rhizome of Curcuma longa Linn.: Chauhan U.K., Soni P., **Singh Vinod**, Jain S.K., Medical Gazette, **2001**; Aug; XXXV No.8.
7. Effect of High power Acute Microwave Radiation On Humoral and Cell Mediated Immune system of Belgian White male rabbits. **Singh Vinod**., Nageswari K.S., Sarma, K.R., Rajvanshi., Barthwal. V., Sharma.M. , Shrivastawa.C.B. , Journal of Immunology and Immunopathology: **2001**;3(2): 16-26.
8. Phagocytosis of Polymorphonuclear leukocytes; **Singh Vinod**, Chauhan Puneet Singh, Das Siddhartha Kumar; Journal of Immunology Immunopathology, **2002**: 4,20-28.
9. In vitro susceptibility of chloroquine (4-aminoquinolines) against pathogenic bacteria; Jain Sudhir K, **Singh Vinod**, Gupta Sanjeev; Indian Journal of Microbiology, 43, **2003**, 47-48.
10. Immune study of Onychomycosis caused by *Candida albicans*: Jain Sudhir K, **Singh Vinod**, Gupta Sanjeev, Journal of Immunology and Pathology, **2002**: 4,101-103.
11. Bioimmunology of Osteoarthritis, Sharma Pradeep, **Singh Vinod**: Journal of Immunology and Immunopathology, **2002**;4, 20-28.
12. Host defense against tumours, **Singh Vinod**, Journal of Immunology and Immunopathology: **2004**, 6(S-1) 23-29.
13. Study of humoral immune system against *E.histolytica* infection in patients of Immuno arthritis, **Singh V** and Das S.K., Journal of Immunology and Immunopathology, **2004**;6(S-1) 125.
14. Osteoarthritis & its association with Bioimmunological markers Sharma Pradeep, Singh.N., **Singh Vinod**, Yadav G.S Archieves of Cell Biology, **2004**;4,15-25.

16. Immunological markers (alpha TNF) in Osteoarthritis patients Sharma P., Singh N., **Singh V. et al:** Journal of Immunology and Immunopathology, **2004:** (6S-1), 117-118.
17. Spirulina as immuno- enhancer and biomodulator. Rathore N K, Singh S, **Singh V J.** Immunol. Immunopathol. **2004:** 6(2): 1-10.
18. Studies on Immunomodulatory and immunotherapeutic potential of dietary *Spirulina*. Rathore N K, Singh, S, **and Singh V:** Proceedings of National Conference on Immunology in Health & Disease, **2006** pp.169-175.
19. Rheumatoid factor lacks association with either tumour burden or IgG- circulating immune complexes in Cancer patients. **Singh Vinod**, Immunology Letters (IP-368) (communicated June **2006**).
20. Effect of High power Acute Microwave Radiation on T and B cell mediated Immune system of Belgium white rabbits. **Singh Vinod**, Nageswari K.S, Sarma K.R, Rajvanshi V.S, Sharma M, Barthwal V, Shriwastava C.B. Journal of immunology and Immunopathology, **2006:**35-41.
21. Xenobiotics Exposure and autoimmunity: Misra K.P., Naik Sita and **Singh Vinod:** Jr. of Immunol and Immunopathol, **2005**, 7(1): 8-15.
22. Status of Biochemical and Immunological parameters in female Osteoarthritis Patients: Sharma Pradeep, Singh Neelima and **Singh Vinod:** Jr Immunol and Immunopathol, **2005:**7(2):62-64.
23. Study of Tumor Necrosis Factor alpha (TNF- α) and Estrogen hormone in Osteoarthritis female patients. Sharma Pradeep, Singh Neelima and **Singh Vinod;** Indian Journal Of Clinical Biochemistry. **2006**, 21(1) 205-207.
24. Study of Antimicrobial effect of Gomutra against Pathogenic Bacteria: Yadav Hariom, **Singh Vinod.** Ind Jr of Animal Sciences; **2006**, 57(4) 156-160.
25. Study of protein against various types of tumors: Devkant, **Singh Vinod, et al** Jr Immunol and Immunopathol, **2007:**9(3) 34-38.
26. Study of Immunomodulating Effect of Probiotics against Enetropathogenic bacteria in Balb/c mice: **Singh Vinod**, Tiwari S.S. Jr Immunol and Immunopathol, **2007:**8(2): 62-64.

27. Cancer Vaccine:An Immunomodulating Approach od Cancer Therapy: **Singh Vinod**, Singh,Kiran,Saxena Nidhi,Sharma Manish: Med Bio:366,2008.
28. Cytokines and its role in Inflammatory Reactions: **Singh Vinod**, Singh Kiran *et al*: Proceedings of Cytokines and Inflammations: 109-112:2008.
- 29.Rhodamine 6 G uptake and efflux in clinical isolates of *Candida albicans* isolated from immunocompromised hosts: Mishra N.N., Shrama N.,**Singh V.**, Gupta D.K., Jr of Immunology and Immunopathology,2007;9(1&2) 61-63.
30. Clinical and Laboratory Diagnosis of Blue Tongue Viral (BTV) Disease:Pawan Kumar, Narender Kumar, **Vinod Singh**, Prabhat Kumar and S Nandi; Advances in Life Sciences, 2009, (4) 34-38.
31. Influence of Iron on Phosphate Metabolism in Cyanobacterium *Nostoc calicicola*; Bilal A Bhat, Pramod K.Pandey and **Vinod Singh**; Applied Biological Research; 2010; 12;64-68.
32. Effect of Iron limitation on growth and other physiological processes in a Cyanobacterium *Nostoc calicicola*; B.A.Bhatt, Pramod K Pandey and **Vinod Singh**; Advances in Life Sciences 2009;3(1-4)'24-28.
33. Putative Virulence Determinants and Antibiotic Susceptibility against Endodontic *Enterococcus faecalis* Isolates. Rakesh Kumar Patidar, Mithilesh Kumar Gupta, Deepak Dwivedi and **Vinod Singh**. 2nd Antimicrobial resistance conference proceeding, Feb 2012, *SHIATS*, Allahabad (UP).
34. Study of selective antibiotic susceptibility against nosocomial infection. Swati Bagde, Rakesh Kumar Patidar and **Vinod Singh**. 2nd Antimicrobial resistance conference proceeding, 2012, *SHIATS*, Allahabad (UP).
35. Antibigram assessment against upper respiratory tract infection causing bacteria. Mayuri khare, Nishi Yadav, Rakesh Kumar Patidar and **Vinod Singh**. 2nd Antimicrobial resistance conference proceeding, 2012, *SHIATS*, Allahabad (UP).
36. Effect of Methotrexate on residential micro flora of human body. Garima Dubey, Ruchi Soni, Rakesh Kumar Patidar and **Vinod Singh**. National conference on role of new technologies in conservation of environment. School of environmental biology, Conference proceeding, 2012, APS University, Reewa (MP).

37. Study on phytochemical analysis and in vitro antibacterial activity of some selected plants against human pathogens. Swati Bagde, Mayuri Khare, Rakesh Kumar Patidar and **Vinod Singh**. National conference on role of new technologies in conservation of environment. **2012**. School of environmental biology, APS University, Reewa (MP).
38. Study of Phytochemical and antimicrobial effects of plant extracts against certain microorganisms. Mayuri Khare, Swati Bagde, Rakesh Kumar Patidar and **Vinod Singh**. National conference on role of new technologies in conservation of environment. Conference proceeding. **2012**. School of environmental biology, APS University, Reewa (MP).

POPULAR ARTICLES: 10

1. High consumption of animal fat protein may lead for colon cancer. **Singh Vinod**, **Science Reporter**: 21 (10) 549, **1989**.
2. Role of Trace Elements and Malnutrition: **Singh Vinod**, **Your Health** (Monthly Publication of Journal of Indian Medical Association JIMA): 30: 34-38, **1996**.
3. A pinch of salt: **Singh Vinod**, **Your Health** (JIMA): 34: 249-252, **1995**.
4. Metal Toxicity: **Singh Vinod**, **Swasth Hind** (Monthly Journal of DGHS) 25: 24-26, **1987**.
5. Chronbiology Drug Therapy & Medicine, **Singh Vinod**, Singh R.K., **Your Health** (JIMA): 31: 25-27, **1987**.
6. Mismatched Blood Transfusion: A threat to life, **Singh Vinod**, **Your Health** (JIMA) : 35 174-177, **1986**.
7. Test Tube Baby : A success to Indian immunologist Gynecologist, **Singh Vinod**, Agarwal Asha, Shrivastava C.B., **Your Health** (JIMA) : 37 : 65-66-8, **1988**.
8. Immunopathogenesis of Rheumatoid Arthritis, **Singh Vinod**, **Your Health** (JIMA): 41: 11-14, **1987**.
9. Application of Cellular and Molecular Biology, **Singh Vinod**, **Employment News**: 28 Jan. **1999**.
10. And Now Molecular Surgery, Singh Vinod, **Bulletin of Cancer Hospital**, **2001**.3; 4.

CHAPTERS IN BOOKS AND MANUAL: 08

1. **Manual of Monoclonal Antibodies Production and its use in therapy & diagnosis**
Seth Pradeep, Broor Shobha, Manjunath M. and **Singh Vinod** Sponsored by DBT at Microbiology dept. of AllMS, New Delhi.
2. Chapter titled "**Bacterial Toxins, mechanism of action and its immunological perspectives.**" by Jain Sudhir K and **Singh Vinod**.399. Vol 1 in Book of Microbial biotechnology for sustainable development and production.
3. Chapter titled "**Cytoskeletal proteins and cancer**" by **Singh Vinod** in textbook of anatomy for Veterinary students in November 2001.
4. Chapter titled "**Stress and Immunomodulation**" by **Singh Vinod** in Recent Advances in Immunology and Immunopathology in December **2001**.
5. Chapter on **Immunity** by **Vinod Singh** in Text of Medical Biochemistry edited by Dr.L.M. Shrivastav **2004**.
6. Chapter on **Recent Trends in Biotechnological aspects of Therapy of Rheumatoid Arthritis: An Autoimmune** Disorder in text of Medical Biotechnology edited by Dr P.K. Trivedi in **2006**.
7. Chapter on **Biogenesis of Antibodies** in Text Book Immunology by Dr B.K. Gupta in **2008**.
8. Chapter on "**Future Application of Probiotics: A Boon from Dairy Biology**". **Vinod Singh**, Sarika Amdekar, Hariom Yadav, Nagendra Nath Mishra and Shailini Jain **2011**, In : Microbes and Microbial Technology" Pages 87-100 DOI: 10.1007/978-1-4419-7931-5-4.

TEXT BOOK CONTRIBUTED

1. **Text Book of Virology** by Vinod Singh Publisher International Publication House, Word Press Publisher, Lucknow, India.
2. **.Text Book of Bacteriology** by Vinod Singh Publisher International Publication House, Word Press Publisher, Lucknow, India.

Invitation for Contributory Chapters

In International Books: 2

1. Invitation to write the chapter on Probiotics and its role in Agriculture and Veterinary in **Recent trends in Agriculture and environment going to be published by Springer Publisher, USA, Edited by Iqbal Ahmad in 2010.**
2. Invitation to write the chapter on Immunology in Health and Disease in Cellular Biochemistry in Health and Disease by **Research Signpost publishers, USA, in 2010 Edited by Mahesh Sharma.**

BOOKS IN PROCESS: 02

1. **Text Book of Immunology** by Vinod Singh, Publisher, International Publication House, Word Press Publisher, Lucknow, India.
2. **Manual of Microbiology for Students of UG and PG** by Vinod Singh and Deepak Diwevedi.

PROJECTS COMPLETED

1. UGC minor project on” **Study of Antimicrobial and Immunomodulating Effect of Probiotics against Enterobacteriaceae**”.in 2005 at Dept of Microbiology, cancer Hospital and Research Institute, Gwalior for One Year till 2006).
2. MPCST Major Project on” **Study of Induction of Cytokines Genes Expression and Immune-Enhancer properties of *Lactoacid-bacilli* (LAB) Group of Bacteria in Experimental Animals**” (In Nov 2007 for Two Years till 2009).
3. UGC Major Project on “**Comparative Study of Molecular, Genomic and Antigenic Patterns of Drug Resistant and Drug Sensitive Bacteria of Oral Micro flora**” (Sanctioned in May 2008 for Three Years till 2011)

PROJECTS IN HAND

-
1. ICMR Major Project on “**Screening of herbal drug candidate as potential therapeutic agent for filariasis**” (Sanctioned in Feb 2012 for three years).
 2. MPCST Major Project on “**Study of Role of Stress in Immunity and Infection in Patients of Hypothyroidism**” (Sanctioned in Nov 2012 for two years).

PROJECT SUBMITTED

1. Major Project Titled “**Study of virulence of *Enterococcus faecalis* and *Streptococcus mutans* associated with dental caries and periodontitis**” submitted to Indian Council of Medical Research (ICMR) New Delhi.

PAPERS PRESENTED IN CONFERENCES: 39

1. Role of Altered Immunological and Environmental Factors in Lung Carcinoma in first Asian Conference on Behaviour Toxicology and Clinical Psychology held at Kanpur in **1987**.
2. Assessment of immune function in Microwave Radiated Rabbits in 15th Annual Conference of Indian Immunological Society held at Srinagar in October **1987**.
3. Immunological effects of Low Power Level Microwave radiation on Rabbits exposed for one month at 15th Annual Conference of Indian Immunological Society held at Srinagar in October **1987**.
4. Screening of AIDS patients from Northern India at 16th Annual Conference of Indian Immunological Society held at NII New Delhi in Nov. 1986.
5. Role of Sulphasalazine in the patients of SNSA at Conference of Indian Rheumatism Association held at Patna in **1991**.
6. Study of *E. histolytica* infection in patients of Acute Arthritis at 7th International Conference on Rheumatology held at Bali, Indonesia in **1992**.

7. Study of WOMAC index in patients of Osteoarthritis at Conference of Indian Orthopaedic Association held at K.G. Medical College, Lucknow in **1992**.
8. Study of *E. histolytica* infection in patients of immunoarthritis: **Vinod Singh**, Das S.K., Shukla Preeti, Sriwastava Ragni and Pandeya S.N., Annual Conference of Indian immunology Society and Immunodiagnosis, **1993**.
9. Study of herbal combination in patients of acute infective hepatitis: Ohri V.K., **Singh Vinod**, Mishra R.P., Annual Conference of Indian immunology Society and Immunodiagnosis, held at Lupin Pharmaceuticals at Bhopal, **1993**.
10. Study of Lymphoproliferative response of *E.histolytica* NIH-200 antigen in patients of Rheumatoid Arthritis: **Singh Vinod**, Das S.K. and Pandeya S.N., Annual Conference of Indian Society of Parasitology held at Goa in **1994**.
11. Role of Circulating Immune Complexes of *E. histolytica* nih-200 antigen in Immuno arthritis patients: **Singh Vinod**, Das S.K., Shukla Preeti, Pandeya S.N., Annual Conference of Indian Immunology Society held at Wardha in **1995**.
12. Immunomodulating effect of amoebic antigen in Rheumatoid Arthritis patients, **Singh Vinod** and Das S.K. at Indo-French symposium on Immunomodulation held at National Institute of Immunology in **1995**.
13. Study of Macrophage suppressor activity against *E. histolytica* NIH-200 antigen in patients of immunoarthritis: **Singh Vinod**, Das S.K., Pandeya S.N. at Global meet on Parasitic diseases held at New Delhi, **1996**.
14. Role of C3 complement in pain aggravation in patients of post Amaebic Arthritis, **Singh Vinod**, Das S.K. at International Symposium on Complements in human disease held at AIIMS, New Delhi in October **1998**.
15. Humoral Immune Response of *E. histolytica* infection in Immuno Arthritis patients. **Singh Vinod**, Das Siddartha Kumar at international Workshop on Reemerging Emergency Infectious Diseases (ITREID) held at School of Life Sciences of JNU from 5th to 11th December **1999**, New Delhi.
16. Immunomodulating effect of *E. histolytica* antigen in Immunoarthritis patients: **Singh Vinod**, Das S.K., at 26th Annual conference of symposium on Cancer Immunology in New Millenium held at Tata Memorial Center, Mumbai, **1999**.

17. In vitro effect of intracellular killing of immunomodulating drug Methotrexate of *E. coli* by PMNL cells at First conference of Biotechnology Society of India, held in January **2002**, at department of Biochemistry, V.P Chest Institute, New Delhi.
18. Stress and Immunomodulation: **Singh Vinod.**, at 2nd symposium of Society of Immunology and Immunopathology held at Department of Veterinary Pathology, G.B. Pant University of Agriculture and Technology, **2001**.
19. Host defense against Tumors; **Singh Vinod**, at 3rd annual conference of Society for Immunology and Immunopathology held in **2004** at Central JALMA Institute of Leprosy, Agra.
20. Immunological markers (alpha TNF) in Osteoarthritis patients Sharma P., Singh N., **Singh. V** at 3rd annual conference of Society for Immunology and Immunopathology held in **2004** at Central JALMA Institute of Leprosy, Agra.
21. Immunomodulation and Probiotics: **Singh Vinod**, S.S.Tiwari and Devkant at Recent Trends in Biological Sciences held at December **2006** at RML University, Faizabad.
22. Study of Immunomodulation and Probiotics in Balb/C mice: **Singh Vinod**, S.S.Tiwari and Devkant at Fourth SIIP conference on Immunobiotechnology at Tuberculosis Research Center, Chennai from 25-17th Feb **2007**.
23. Cancer Vaccine:An Immunomodulating Approach od Cancer Therapy: **Singh Vinod**, Singh Kiran, Saxena Nidhi, Sharma Manish at Medbio conference held at Research and Training Center of Bhopal Memorial Hospital and Research Center in March **2008**.
24. Cytokines and its role in Inflammatory Reactions: **Singh Vinod**, Singh Kiran et al: Training cum workshop on Cytokines Assay held at DD University of Veterinary, Mathura form 26-28th Feb **2008**.
25. Role of Circulating Immune Complex (CIC) in Patients of Rheumatoid Arthritis (R.A.)Sarika Amdekar, Sapna Kuswah, Purabi Roy, **Vinod Singh** and Siddartha Kumar Das, 35th Annual Conference of Indian Immunology Society held in Novemver **2008** at ILS, Bhubhaneshwar.
26. Role of HLA-B27 Against *E. histolytica* Antigen (NIH-200) in Patients of Sero Negative Spondylo Arthropathy (SNSA). Sapna Kuswah, Sarika Amdekar, Purabi Roy, **Vinod**

- Singh** and Siddartha Kumar Das, 35th Annual Conference of Indian Immunology Society held in November **2008** at ILS, Bhubhaneshwar.
27. Study of Cell Mediated Immune Response against *E. histolytica* (NIH200) Antigen in Patients of Rheumatoid Arthritis; Purabi Roy, Sapna Kushwah, Sarika Amdekar, **Vinod Singh** and Siddartha Kumar Das, 35th Annual Conference of Indian Immunology Society held in November **2008** at ILS, Bhubhaneshwar.
 28. Putative Virulence Determinants and Antibiotic Susceptibility against Endodontic *Enterococcus faecalis* Isolates. Rakesh Kumar Patidar, Mithilesh Kumar Gupta, Deepak Dwivedi and **Vinod Singh**. 2nd Antimicrobial resistance conference, Feb **2012**, *SHIATS*, Allahabad (UP).
 29. Biofilm forming capability of *Enterococcus faecalis* under different pH stress condition: an *in vitro* study. Rakesh Kumar Patidar, Mithilesh Kumar Gupta, Mayuri Khare, Swati Bagde and **Vinod Singh**. National seminar on application of biotechnology to improve industrially important microbial strain. **2012**, Govt. P.G. College, Guna (MP).
 30. Study of selective antibiotic susceptibility against nosocomial infection. Swati Bagde, Rakesh Kumar Patidar and **Vinod Singh**. 2nd Antimicrobial resistance conference, **2012**, *SHIATS*, Allahabad (UP).
 31. AntibioGram assessment against upper respiratory tract infection causing bacteria. Mayuri khare, Nishi Yadav, Rakesh Kumar Patidar and **Vinod Singh**. 2nd Antimicrobial resistance conference, **2012**, *SHIATS*, Allahabad (UP).
 32. Effect of Methotrexate on residential micro flora of human body. Garima Dubey, Ruchi Soni, Rakesh Kumar Patidar and **Vinod Singh**. National conference on role of new technologies in conservation of environment. School of environmental biology, **2012**, APS University, Reewa (MP).
 33. Study on phytochemical analysis and in vitro antibacterial activity of some selected plants against human pathogens. Swati Bagde, Mayuri Khare, Rakesh Kumar Patidar and **Vinod Singh**. National conference on role of new technologies in conservation of environment. **2012**. School of environmental biology, APS University, Reewa (MP).
 34. Study of Phytochemical and antimicrobial effects of plant extracts against certain microorganisms. Mayuri Khare, Swati Bagde, Rakesh Kumar Patidar and **Vinod Singh**.

- National conference on role of new technologies in conservation of environment. **2012**. School of environmental biology, APS University, Reewa (MP).
35. Phytochemical profiling and In vitro antifungal study of crude stem bark extract of *Senna Alata Linn*. Rajesh Pandey, Niti Mishra, Narendra Kumar, and **Vinod Singh**. National conference on biotechnology and biodiversity “Biological resources conservation, management & sustainable usage” **2012**. Govt. M.S. Govalkar College, Reewa (MP), India.
36. Biotechnological potential of cyanobacteria. Narendra Kumar, Rajesh Pandey and **Vinod Singh**. National conference on biotechnology and biodiversity “Biological resources conservation, management & sustainable usage” **2012**. Govt. M.S. Govalkar College, Reewa (MP), India.
37. Patients and TB + HIV Infected Patient. S.C. Narwadiya, U. L. Dhumne, P.M. Tumane, V. G. Meshram, **Vinod Singh** & K.N. Sahare. National symposium on “**HIV and AIDS: Biology to Bedside**”, 15-16 March- **2012**, Organized by Amity University, Uttar Pradesh, India.
38. Macrofilaricidal Activity of *Vitex negundo* L. against *Setaria cervi*. K N Sahare & **Vinod Singh**. National Conference “Tropacon- 2012.” 11-14 October- **2012**, Organized by IATP, at Sri Aurbindo Institute of Medical Science, Indore (M.P.) India.
39. Influence of *Lactobacillus acidophilus* on biofilm forming *Streptococcus mutans* clinical isolates: an in vitro study. Rakesh Kumar Patidar, Mithilesh Kumar Gupta and **Vinod Singh**. International conference on microbial world: Recent Innovations and Future Trends. 53rd annual conference of association of microbiologists of India (AMI)-22-25 November, 2012.

WORKSHOP IN CONFERENCES ATTENDED: 16

1. First Asian Conference on Behavior Toxicology and Clinical Psychology held at Kanpur in 1987.
2. 14th, 15th and 16th Annual Conference of Indian Immunological Society held consequently at New Delhi, Srinagar and Wardha.

3. Conference of Indian Rheumatism Association held at Dept. of Medicine of King George Medical College, Lucknow in Dec. 1991.
4. Participated in Workshop for production of Monoclonal Antibody for early diagnosis in infectious disease held at Dept. of Virology of All India Institute of Medical Sciences, New Delhi in 1989.
5. Participated in Workshop on Demonstration of Anti Nuclear Antibodies (ANA) at Conference of Indian Rheumatism Association in 1991.
6. Participated in Indo-French Workshop of Immunomodulation held at National Institute of Immunology in Dec. 1995.
7. Gone under training for culture and cultivation of human enteric viruses (*Rota Virus*, *Polio Virus*, *Coxsackie Virus etc.*) at National Institute of Cholera and Enteric Disease, Beliaghata, Calcutta.
8. Participated in International Workshop on Continuing Education in Basic Immunological held at Department of School of Life Sciences, JNU, New Delhi in October 1998.
9. Participated in International Workshop on (Intracellular Pathogens) International Training on Reemerging Emergency Infectious Diseases (ITREID) held at School of Life Sciences of JNU from 5th to 11th Dec., 1999, New Delhi.
10. Participated in International workshop of FIMSA on Immunology held at Department of Immuno-genetics at AIIMS, New Delhi from 2-5 January 2001.
11. Participated in national workshop on modern immunological techniques held at CJIL, Agra in 2004.
12. Participated in national workshop on modern immunological techniques for detection of *Mycobacterium tuberculosis* held at TRC, Chennai in 2007.
13. Participated in National workshop on Cytokines and Inflammatory Reactions held at Dept of Immunology and Immunopathology at Pt. Deen dayal Upadhyaya University of Veterinary Sciences, Mathura in Feb 2008.
14. Participated in Industrial BIOMED meet held at Bhopal Memorial Hospital and Research Center (BMHRC), Bhopal in Feb 2008.

15. Participated in MP chapter of Microbiology on Meet on Update in Tuberculosis held at Dept of Microbiology of Bhopal Memorial Hospital and Research Center (BMHRC), Bhopal In Feb, 2009.
16. Participated in symposium of Molecular Biology held at Center for Scientific Research and Development (C.S.R.D) of Peoples Dental College and Research Center, Bhopal In July, 2009.

INVITED LECTURES: 13

1. Invited by Nursing College, Cancer Hospital and Research Institute to deliver Lecture on AIDS management in Nursing.
2. As a Resource person for invited series on immunology in UGC Refresher course on Microbiology and Biotechnology of A.P.S. University, Rewa (M.P.).
3. Invited to deliver a lecture on Cancer immunology at 3rd conference of SIIP held at Central JALMA Institute of Leprosy, Agra.
4. Invited to deliver a lecture on Probiotics and Immunomodulation in Recent Trends in Biological Sciences symposium held at RML University, Faizabad.
5. Invited to deliver a lecture on Study of Probiotics as Immunomodulators in Balb/C mice at 4th conference of SIIP held at Tuberculosis Research Center, Chennai.
6. Invited to deliver lecture on "Cytokines and its role in Inflammatory Diseases" at Workshop on Cytokine Assay at Pt Deen Dayal University of Veterinary Sciences, Mathura in Feb 2008.
7. Invited to deliver a lecture of "Cancer Vaccine: An Immunomodulating approach in Cancer Treatment" at Bhopal Memorial Hospital and Research Center (BMHRC) at Bhopal in Feb 2008.
8. Invited to deliver the lecture on "Recent Trends In Biotechnology" by Rajeev Gandhi Vocational College, Guna in March 2008.
9. Invited to deliver the Lecture on Immunodeficiency Diseases at CME going to be held at Dept of Biochemistry of M.S.Baroda University, Vadodra in Nov 2009.

10. Invited to deliver lecture on Role of Probiotics as an Immunomodulator at World Conference of Cellular and Molecular Biology going to be held at DAV University, Indore in Nov 2009.
11. Invited to deliver lecture on Oral Inflammatory Diseases and Immunity at I.T.M University, Gwalior in 2010.
12. Invited to deliver lecture on Role of Probiotics against infectious diseases at National Conference on Genomics, Proteomics and Metabolomics held in 2010 at S.G.P.G.I of Medical Sciences, Lucknow.
13. Invited to deliver lecture on “Hypersensitivity in autoimmune and immunodeficiency diseases” at National conference on role of new technologies in conservation of environment. School of environmental biology, 2012, APS University, Rewa (MP).

MEMBERSHIP OF SOCIETIES

1. Life member of Indian Society of Parasitology.
2. Life member of Indian Immunology Society.
3. Life member of Association of Microbiology of India.
4. Life member of Society of Immunology and Immunopathology.
5. Annual member of Indian Virology Society.
6. Member of New York Academic of Science, U.S.A.
7. Member of Tumor board and Clinical Meeting Society of Cancer Hospital and Research Institute, Gwalior, M.P, India
8. Executive Member of Indian Immunology Society.
9. Joint secretary of Society for Immunology and Immunopathology (SIIP).
10. Member of Society of Infectious Diseases, United States of America.
11. Life Member of International Union of Immunological Sciences(IUIS)
12. Member of American Association of Immunologists (AAI).

EDITORIAL EXPERIENCE

1. Assistant Editor Indian Journal of Bio Sciences Publish from ITRC, Lucknow.

2. Associate Editor of Journal of Immunology and Immunopathology (**peer reviewed and indexed**) Published from Department of Veterinary Immunology of Indian Veterinary Research Institute, Bareilly (U.P) India.
3. Advisory member of Journal of Advances in Life Sciences
4. Associate Editor of Journal of Medicinal Plants Research (JMPR) Auckland, New Zealand.
5. Associate Editor Journal of Blood Medicine, Dove Press, U.S.A.
6. Associate Editor, International Journal of Virology and Molecular Biology, U.S.A.
7. Associate Editor, International Journal of Life Sciences, Gwalior, India.

EXTRA ACTIVITIES

1. Recipient of State Level Scholarship.
2. Qualified UNICEF General Knowledge Examination.
3. Given Talks on Immunology on National Channel of Radio and T.V.
4. Immense interest in medical Journalism in Hindi and English and published more than 1000 articles in Health Columns of leading national news papers and magazines.

COMPUTER SOFTWARE KNOWN:

WordStar, dBase III Plus, Statistical Software, Internet (EPI-INFO-MINITAB), Multimedia (MS word)

Annexure-1

MAJOR EXPOSURE IN DRUG AND CLINICAL TECHNIQUES DEVELOPMENT

(In vitro and In vivo)

In Virology

1. Cultured and cultivated human Rota and Coxsackie viruses for virological CH50, Neutralizing antibodies and in hybridization test.
2. Cultured Human Rota Virus for developing membrane against it for adhering.

3. Flowcytometry and Immunocytochemistry technique for identifying hu-Coxsackie virus antigen of cardiac tissues.
4. Screening of HIV 1 & 2 infected patients from Northern India by ELISA and Western Blot.

In Parasitology

1. Chemotherapeutic screening of antimalarial compounds in vitro using culture method of mouse RBCs.
2. Development of in vitro drug resistant clone of Leishmania parasite against various anti Leishmanial drugs.
3. In vitro chemotherapeutic screening of anti Leishmanial compounds.
4. In vitro screening of antimalarial compounds against *P. berghi*.
5. In vitro screening of antifilarial compounds against *Setaria cervi*.

In Serology and Immunology

1. ELISA Immunocytochemistry, in vitro culture of lymphocytes and macrophages, Gel electrophoresis.
2. ELISA based macrophage activity, No estimation, IL 1, IL 2, IL 3 and Gamma Interferon Assay micro - ELISA circulating immune complex for HIV-1, HIV-2 and Cocksackie virus B6 antigen.
3. HLA tissue typing by MLR assay, Lymphocyte proliferative assay against various antigens using thymidine (3H).
4. Routine Hematological test in addition to Helper and Suppressor and HLA typing by using CD4, CD8, CD19, CD5, HLA DR4 and HLA B27 monoclonal antibodies.

Cell & Tissue Culture

1. Culture and cultivated Chick embryo cell line, BGMK, FRMK, VERO cell lines against Cocksackie and Rotaviruses.
2. In vitro culture and cultivation of human RBCs, macrophages, and lymphocytes for parasitic studies against malaria and amoebic parasite, in vitro culture of mouse RBCs and macrophages for murine malaria and Leishmania parasite study.

3. Developed in vitro drug resistant clone model of Leishmania parasite RMI 67 against various anti Leishmanial drugs.

Bacteriology

Culture, characterisation and identification of pathogenic bacteria and parasites from patients isolates (eg *E. coli*, *Y. enterocolitica*, *P. aeruginosa*, *Salmonella*, *Shigella*, *K. pneumoniae*, *S. aureus*, *S. pneumoniae*, *B. anthrax*, *Serratia*, *Clostridium*, *Mycobacteria*, *P. falciparum*, *E. histolytica*, *L. donovani* , *Lactobacili*, *Proteus*, *Neseria cattarahalis*, *Nesseria gonorrhoea* and *meningitis*.

Cancer

Detection of tumor markers Ca-125, AFP, CEA, PSA, FSH, LH, Prolactin and beta HCG and T3, T4 and TSH and Mycobacterial antigen Myco IgG, IgM and IgA and viral antigen HBsAg by ELISA method.

Annexure - 2

SUMMARY OF RESEARCH EXPERIENCE

1. All India Institute of Medical Sciences, New Delhi

1.1 Clinical immunology Unit, Department of Medicine

Worked as Junior Research officer in the project titled *Anti Nuclear Antibodies (ANA) specificity patterns in the patients of drug induced SLE*, in which worked on the different patterns of anti nuclear antibodies immuno fluorescence assay with the help of which we can specify the diagnosis of the various patterns of autoimmune disorders like Rheumatoid Arthritis, SNSA and SLE.

Secondly I also worked in another ongoing project in which the same department in which We had started the screening of the AIDS patients for the first time from northern India including assessing the autoimmune status by counting the Lymphocyte subset by using immunoperoxidase staining of peripheral blood cells (using Monoclonal antibodies CD4+, CD8+, CD5+ and CD19+).

1.2 Department of Virology

Worked as Assistant Research officer in the project titled *Virological, Immunological and biochemical study of Coxsackie virus in the patients of Dialated Cardio Myopathy (DCM)*. Here I had worked on the culture characterisation and identification of the Coxasackie viruses (*Coxasackie A and B strains*) by using Cytopathic effect (CPE) assay on BGMK, VERO and FRMK cell lines. I had also identified the strain titter by using Neutralisation Antibodies Titter Assay (NtAb), *In situ hybridization* as well as Immunoperoxidase staining of *Coxasackie virus* infected tissues and cells.

2. Indian Institute of Technology, Kanpur

2.1 Department of Environmental Engineering

Virology lab as Senior Project Associate in the ongoing project titled *Development of low cost water filter against Rotaviruses sponsored* by International Development Council (IDRC), Canada. Here I had got chance to culture the FRMK cell line for the

culture of Rota viruses, during this tenure I had also been send to get training on cell and tissue culture at National Institute of Cholera and Enteric Diseases (NICED), Beliaghata, Kolkata.

2.2 Department of Electrical Engineering.

I had also worked as Sr Research Assistant in the Project titled *Effect of Acute and Chronic Microwave radiation on the immune system of rabbits* sponsored by Department of Energy (DOE) at Electrical Engineering Department.

Here I got major Exposure on the immunological techniques like-LTT assay for the Blast formation, Ig+ B cell estimations by Immuno fluorescenc assay (IFA), T and B cell assay by E and EAC Rossette formation and PAGE for serum protein assay. I had also worked on the assessment of DTH response by footpad measurement.

3.0 Doctoral work at Immunology and Rheumatology Services of Dept of Medicine of King Georges Medical College,Lucknow(Recognised center of Faculty of Life Sciences C.S.J.M University)

I have done my doctorate on the topic titled *Study of Humoral and Cell Mediated Immune response of E. histolytica infection in the patients of Immunoarthritis*. From Clinical Immunology and Rheumatology Unit of Department of Medicine, King Georges Medical College, Lucknow

To asses the immune mediated injury, I have assessed the role of amebic antigen in the three group of Arthritis like Arthritis of recent Onset (ARO), Rheumatoid Arthritis (RA) and Sero Negative Spondylo Arthropathy (SNSA). I used the bacteriological screening of enterobacteriaceae to rule out the septic arthritis. Then by using crude amebic antigen (CAE) I studied the Humoral and Cell Mediated Immune (CMI) response of the Immune cells and serum of the Immunoarthritis patients. The major techniques used were-ELISA, Immun Haemagglutination Assay (IHA),Immuno Fluorescenec assay(IFA) and micro-ELISA for detection of CIC against amebic antigen for humoral assay and LTT by

Thymidine uptake assay for Blast and CD+4,CD8+,CD5+,CD19+and HLA-DR and B27 for CMI assay.

I found that there was increased level of anti amebic antibodies and lowering in CMI response in the patients. By providing the ant amebic therapy there was relief among these groups of patients.

4. Post-doctoral work at division of Microbiology at Central Drug Research Institute (CDRI), Lucknow

I have joined CDRI as Research Associate in the project running in collaboration with CSIR and Walter Reed Army Research Institute, USA. Project title was the role of γ interferon in malarial immunity. There we had done the culture of mice rbc's and assessed the antimalarial effect of γ interferon on murine and Primate parasite *P. berghii* and *P. Knowlesi*. Parasitaemia was counted and effect had been studied.

I have also worked on the development of drug resistant clone of *Leishmania donovani* to study the genomic and antigenic characterization of that clone in near future.

5. Area of Research at Applied Microbiology Dept of Cancer Hospital and Research Institute, Gwalior

5.1.1 Presently working on Culture, characterisation and identification of pathogenic bacteria and parasites from patients isolates (eg *E. coli*, *Y. enterocolitica*, *P. aeruginosa*, *Salmonella*, *Shigella*, *K. pneumoniae*, *S. aureus*, *S. pneumoniae*, *B. anthrax*, *Serratia*, *Clostridium*, *Mycobacteria*, *P. falciparum*, *E. histolytica*, *L. donovani*, *Lactobacilli*, *Proteus*, *Neseria cattarahalis*, *Nesseria gonorrhoea* and *meningitides*).

5.1.2 Study of Immunomodulation effect of Probiotics against Enterobacteriaceae in intestinal immunology of Experimental BALB/C Mice.

6 Current Field of work and Research, at Microbiology Dept of Barkatullah University, Bhopal

- 6.1. Comparative Study of Molecular, Genomic and Antigenic Patterns of Drug Resistant and Drug Sensitive Bacteria of Oral Micro flora form Patients of Oral Infections.
- 6.2 Studying on Induction of Cytokines Genes Expression and Immune-Enhancer properties of *Lactoacid-bacilli (LAB)* Group of Bacteria in Experimental Animals (Balb-C mice)”