

CV OF DR. SIKANDER SULTAN

NAME: DR. SIKANDER SULTAN
FATHER'S NAME: CH. SULTAN AHMED
DATE OF BIRTH: August 28, 1964
PRESENT STATUS: Associate Professor, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore
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EDUCATIONAL QUALIFICATION

NAME OF EXAMINATION	YEAR	DIVISION	NAME OF INSTITUTE
Matriculation	1979	Ist (613 / 850)	Board of Intermediate and Secondary Education, Lahore
F. Sc.	1981	Ist (605 / 1000)	-do-
B. Sc.	1984	IInd (423 / 850)	University of the Punjab, Lahore.
M. Sc. (Botany)	1986 (Held in 1987)	Ist (868 / 1200) With Distinction (First Position and Gold Medal)	-do-
Ph. D. (Microbiology and Molecular Genetics)	2007		-do-
Postdoc (Environmental Microbiology)	August 2010-February 2011		The University of Sydney, Australia

DISTINCTIONS /AWARDS

1. First Position in Punjab University in M. Sc. Botany Part II First Annual Examination, 1986 held in 1987 and awarded Punjab University Gold Medal and Pakistan Tobacco Company Gold Medal.
2. Academic Roll of Honour, Govt. College, Lahore, in the year 1986.
3. Awarded Endeavor Postdoctoral Research Fellowship by Australian Education International, Department of Education, Employment and Workplace Relations for the year 2010.

PROFESSIONAL EMPLOYMENT

1. Associate Professor, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, May 15, 2008 – to date.
2. Assistant Professor, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, May 22, 2007 – May 14, 2008.
3. Assistant Professor, Botany Department, Government College, Township, Lahore, July 10, 2003 – May 21, 2007.
4. Assistant Professor, Botany Department, Govt. F. C. College, Lahore, March 24, 1999 – July 9, 2003.
5. Lecturer, Botany Department, Govt. College of Science, Wahdat Road, Lahore, January 5, 1999 – March 24, 1999.
6. Lecturer, Botany Department, Govt. F. C. College, Lahore, January 02, 1989 – January 04, 1999.
7. Trainee Fellow, Soil Biology Division, Nuclear Institute for Agriculture and Biology (NIAB), Faisalabad, February 11, 1988 – December 31, 1988.

TEACHING

A: DEPARTMENT OF BOTANY, GOVT. F. C. COLLEGE, LAHORE

TEACHING POSTGRADUATE

1. Microbiology
2. Plant Ecology
3. Plant Taxonomy

INTERMEDIATE AND GRADUATE

1. Plant Taxonomy
2. Plant Physiology and Ecology
3. Biology

B: DEPARTMENT OF BOTANY, GOVT. COLLEGE TOWNSHIP, LAHORE

TEACHING INTERMEDIATE AND GRADUATE

1. Microbiology and Diversity of Plants
2. Plant Physiology and Ecology
3. Biology

C: DEPARTMENT OF BOTANY, UNIVERSITY OF THE PUNJAB, LAHORE

POSTGRADUATE: Microbiology (Special Paper) (2005-2006) as visiting faculty member.

D: DEPARTMENT OF MICROBIOLOGY AND MOLECULAR GENETICS, UNIVERSITY OF THE PUNJAB, LAHORE

As Visiting Faculty Member:

Environmental Microbiology (B.Sc. Hons. 5th Semester-Sessions of 2002, 2003 and 2004-2005)

As Regular Faculty Member:

1. Environmental Microbiology (BS)
2. Fundamentals of Microbiology (BS, M.Sc.)
3. Microbial Diversity (M.Sc.)
4. Microbiology and Environmental Hazards (BS, M.Sc.)
5. Communicable Diseases Common to Man and Animals (MS/M.Phil.)
6. Cell Biology – Problem Solving (Ph.D.)
7. Biodiversity of Plants and Fungi (BS)

RESEARCH

M.Sc. Research work: “Microbiological examination of some foods” (1986-1987).

Research work at NIAB, Faisalabad: Research work in Plant Biotechnology (Plant tissue and cell culture) at NIAB, Faisalabad, from 11-02-1988 to 31-12-1988.

Ph.D. Research Work: Cr-resistant bacteria from industrial wastes: genetic analysis and chromium accumulation and reduction potentials (2002-2007).

RESEARCH PROJECTS

Completed:

1. Biosorption of Cr (VI) by Biomass of Exopolysaccharide Producing Bacterial Strains. Funded by the University of the Punjab, Lahore, 2007-2008, of worth Pak Rs. 0.15 million, **PI:** Dr Sikander Sultan.
2. Hexavalent Chromium Reduction by Immobilized biomass of Cr-resistant Bacterial Strains. Funded by the University of the Punjab, Lahore, 2008-2009, of worth Pak Rs. 0.15 million, **PI:** Dr Sikander Sultan.
3. Isolation and characterization of Cypermethrin degrading bacteria. Funded by the University of the Punjab, Lahore, 2009-2010, of worth Pak Rs. 0.15 million, **PI:** Dr Sikander Sultan.
4. Isolation and characterization of Synthetic Pyrethroid degrading bacteria. Funded by the University of the Punjab, Lahore, 2010-2011, of worth Pak Rs. 0.2 million, **PI:** Dr Sikander Sultan.
5. Isolation and characterization of biosurfactant producing bacteria from oil-contaminated soil samples. Funded by the University of the Punjab, Lahore, 2011-2012 of worth Pak Rs. 0.2 million, **PI:** Dr Sikander Sultan
6. Characterization of chromium (VI) reducing bacteria and their plant growth promoting characteristics. Funded by the University of the Punjab, Lahore, 2012-2013, of worth Pak Rs. 0.2 million, **PI:** Dr Sikander Sultan.
7. Isolation and characterization of arsenic-resistant bacteria and their role in bioremediation. Funded by the University of the Punjab, Lahore, 2013-2014, of worth Pak Rs. 0.2 million, **PI:** Dr Sikander Sultan.

Approved:

1. Antioxidative effects of cyanobacterial extracts on cultured human lymphocytes. Approved by Pakistan Science Foundation, 2013-2016, of worth Pak Rs. 2.0 millions, **PI:** Prof. Dr. Shahida Hasnain, **Co-PI:** Dr. Sikander Sultan.

HEC RECOMMENDED Ph.D. RESEARCH SUPERVISOR

Higher Education Commission recommended Ph.D. research supervisor in the field of Biological Sciences.

RESEARCH THESIS GUIDED

Ph.D.: 02 (work under progress)

1. Shamsa Akbar, "Biodegradation of chlorpyrifos and cypermethrin by indigenous bacteria", Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (Work under progress).
2. Hafsa Shahbaz, "Plant growth promoting potential of nickel and chromium resistant bacteria" Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (Work under progress).

MS/M.Phil.: 06

1. Mahwish Javaid, "Cr-resistant actinomycetes: plant growth promotion traits and Cr(VI) reduction potentials" 2008-2009, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
2. Abida Akhter, "Isolation and characterization of deltamethrin and bifenthrin degrading bacteria" 2009-2010, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
3. Amna Farooq, "Biosurfactant producing bacteria from oil contaminated samples" 2011-2012, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
4. Saira Naseer, "Qualitative analysis and antimicrobial susceptibility of *Salmonella* and *E. coli* from raw milk samples" 2011-2012, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
5. Atique-ur-Rehman, "Prevalence of enteric bacteria in fresh vegetable salads and occurrence of integrons among drug resistant isolates" 2012-2013, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
6. Shazia Perveen, "Characterization of toxic hexavalent chromium reducing bacterial strains and their effect on *Triticum aestivum* L. Growth under chromium stress" 2012-2013, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.

M. Sc.: 09

1. Nasir Abbas, "Flora of F. C. College, Lahore", 1988-1989, Botany Department, Govt. F. C. College, Lahore.
2. Shabana Bashir, "Allelopathic potential of bamboo species", 1988-1989, Botany Department, Govt. F. C. College, Lahore.
3. Ali Asghar, "Allelopathic effects of weeds and some other biotic factors on germination and seedling growth of onion", 1990-1991, Botany Department, Govt. F. C. College, Lahore.
4. Zaheer Ahmad Nasir, "Ecological studies on some weeds of gram, lentil, mustard and wheat crops of district Chakwal", 1999-2000, Botany Department, Govt. F. C. College, Lahore.
5. Ali Ahmad Bajwa, "Ecological Assessment of weeds in lentil, potato, sunflower and wheat fields of tehsil Narowal", 2000-2001, Botany Department, Govt. F. C. College, Lahore.
6. Hina Sadiq, "Lead-resistant bacteria from polluted soil and their role in plant growth under lead stress" 2009-2010, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.

7. Sumaira Anwar, "Characterization of zinc-resistant bacteria from polluted environment and study of their effect on plant growth in zinc-stress" 2009-2010, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
8. S. Samreen Zaidi, "Characterization of Cd-resistant bacteria from contaminated environment and their impact on plant growth in Cd-amended soil" 2009-2010, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
9. Shazia Perveen, "Hexavalent chromium reducing bacteria and their plant growth promoting characteristics" 2011-2012, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.

B.Sc. (Hons.): 09

1. Khansa Mubashar, "Uptake of Cr(VI) by biomass of exopolysaccharide producing bacterial strains" 2007-2008, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
2. Saima Shafqat, "Hexavalent chromium reduction by immobilized biomass of indigenous bacterial strains" 2007-2008, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
3. Amna Farooq, "Chromium (VI) -resistant actinomycetes from soil and their potential for Cr(VI) reduction", 2008-2009, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
4. Usman Aftab, "Isolation and characterization of pesticides degrading bacteria from agricultural soils", 2008-09, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
5. Ayesha Aziz, "Cu-resistant bacteria from contaminated soil and their potential in promoting plant growth under Cu-stress" 2009-2010, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
6. Sadia Israr, "Characterization of cypermethrin degrading bacterial strains from agricultural soils" 2011-2012, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
7. Nayab Talat, "Characterization of chlorpyrifos degrading bacterial strains from pesticide contaminated soils" 2011-2012, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
8. Fayqa Komal, "Chromate-resistant rhizobacteria: isolation, chromate reduction potential and plant growth promoting traits" 2012-2013, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
9. Hafsa Hussain Mohammad, "Phytochemical screening and antimicrobial and antioxidant activities of crude extracts of medicinal plant" 2012-2013, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.

REVIEWER OF SCIENTIFIC JOURNALS:

1. Microbial Cell Factories
2. Pakistan Journal of Botany
3. International Journal of Medicine and Medical Sciences
4. African Journal of Biotechnology
5. African Journal of Microbiology Research
6. Journal of Basic Microbiology

BACTERIAL STRAINS IDENTIFIED THROUGH DNA SEQUENCE ANALYSIS

- (i) *Ochrobactrum intermedium* STCr-5 (DQ341442)
- (ii) *Ochrobactrum Intermedium* SDCr-5 (DQ366930)
- (iii) *Ochrobactrum anthropi* STCr-1 (DQ989207)
- (iv) *Bacillus pumilus* strain HSD3 (HQ457013)
- (v) *Pseudomonas aeruginosa* strain HSD1 (HQ457014)
- (vi) *Stenotrophomonas maltophilia* strain AQN2 (HQ457015)
- (vii) *Bacillus cereus* strain S7 (HQ457016)
- (viii) *Pseudomonas aeruginosa* strain RSB3 (HQ457017)
- (ix) *Pseudomonas aeruginosa* strain DSE2 (HQ457018)
- (x) *Pseudomonas aeruginosa* strain R2 (HQ457019)
- (xi) *Paracoccus* sp. strain MLT3 (HQ457020)
- (xii) *Exiguobacterium* sp. strain MN3 (HQ457021)
- (xiii) *Bacillus thuringiensis* strain W1 (HQ457022)
- (xiv) *Bacillus cereus* strain S8 (HQ457023)
- (xv) *Staphylococcus haemolyticus* strain SA2 (KC469289)
- (xvi) *Staphylococcus haemolyticus* strain SA3 (KC469290)
- (xvii) *Staphylococcus pasteurii* strain SA8 (KC469291)

INTERNATIONAL COLLABORATION

DR. IAN COLBECK, Department of Biological Sciences, University of Essex, Wivenhoe Park, Colchester, CO4 3SQ, United Kingdom.

DR. BALWANT SINGH, Faculty of Agriculture, Food and Natural Resources, University of Sydney, Sydney, Australia.

DR. MICHAEL KERTSZ, Faculty of Agriculture, Food and Natural Resources, University of Sydney, Sydney, Australia.

DR. BHUPINDERPAL SINGH, Senior Research Scientist, Industry and Investment, NSW Government, Sydney, Australia.

FIELDS OF SPECIALIZATION

1. Microbiology and Molecular Genetics
2. Environmental Microbiology
3. Bioremediation
4. Aerobiology
5. Environmental Biology

OTHER COURSES / TRAININGS

1. The National Cadet Corps (N. C. C.) (1979-1981).
2. Postgraduate Training Course on Nuclear and other Advanced Techniques used in Agriculture and Biological Research (held in October 1988) at NIAB, Faisalabad.
3. Bee Keeping Training Course organized by Punjab University and PARC, Islamabad.

4. Three Month In-service Course in Floriculture and Landscaping (Session 2000-2001) from Floriculture and Landscaping Training Center, Department of Agriculture Punjab.
5. The Participant Teachers Course of the Intel Teach to the Future Program (30 / 05 / 2002 to 10 / 06 / 2002) with support from Microsoft.
6. Diploma (Four years) in Homoeopathic Medical System (D.H.M.S.) from National Council for Homoeopathy, Government of Pakistan (Session 2000-2004)
7. Proteomics Workshop: From Sample Preparation to Data Analysis, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore from October 24-25, 2007.
8. Faculty Orientation Program 2008, Human Resources Development Centre, Institute of Administrative Sciences, University of the Punjab, Lahore.
9. Two Days Campus Management System (CMS) Orientation Program (Student Financials, Student Records & Grade Book) conducted at the University of the Punjab, Lahore organized by Techlogix Center of Excellence, April 13-14, 2009.
10. One Day User Acceptance Testing and Training Program (Recruitment & Admissions) conducted at the University of the Punjab, Lahore organized by Techlogix Center of Excellence, May 4, 2009.
11. International Workshop on Bioinformatics 19th to 21st September 2009, Colombo Sri Lanka organized by Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo in collaboration with European Molecular Biology Network.
12. National Seminar and Workshop on Environmental Toxicology and Health, March 8-9, 2011, organized by Department of Pharmacology and Toxicology, UVAS, Lahore in collaboration with Department of Clinical Neuroscience, University of Cambridge, UK.
13. Workshop on Understanding the Adult Learner organized by Learning Innovation Division, Higher Education Commission held at HEC Regional Center Lahore July 15-16, 2011.
14. One week training course on office management for officers organized by Management and professional Development Department, Government of the Punjab held at Punjab Institute of Management and Professional Development Lahore March 12 – 16, 2012.

MEMBERSHIP OF LEARNED SOCIETIES

1. Member American Society for Microbiology (ASM) (2012- to date)
2. Life Member, Pakistan Botanical Society.
3. Life Member, Pakistan Genetical Society.
4. Member Zoological Society of Pakistan (1996).
5. Member, Environment Protection Society (1997).

CONFERENCES / SYMPOSIA / SEMINARS ORGANIZED

1. Member Organizing Committee, 1st Symposium of Microbiology and Molecular Genetics on Genomics, Proteomics, Metabolomics: Recent Trends in Biotechnology. 22-23 October 2007, Organized by Department of Microbiology and Molecular Genetics, University of the Punjab Lahore.
2. Member Organizing Committee, Symposium on "Microbial Resistant Paints" (April 17, 2008) organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with HEC, Islamabad.
3. Member Organizing Committee, Symposium on "Modern Biotechnology – A Resource for Sustainable Development, July 4, 2009, organized by Department of Microbiology and

Molecular Genetics, University of the Punjab, Lahore in collaboration with Monsanto at PC Hotel, Lahore.

4. Member Organizing Committee, Pre-Conference Workshop on Molecular Hematology, February 9, 2010, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
5. Member Organizing Committee, Symposium on "Current Agro Biotechnology And Transgenic Plants", June 21, 2010, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with Monsanto, Pakistan at PC Hotel, Lahore.
6. Member Organizing Committee "Bio-physicochemical basis for Technopreneurship" jointly organized by Department of Microbiology and Molecular Genetics & Institute of Business Administration, University of the Punjab, Lahore, April 2-3, 2013.
7. Member Organizing Committee, One Day workshop on "Basic Biosafety Measures in Research" organized by Department of Microbiology and Molecular Genetics, University of the Punjab in Collaboration with National Academy of Young Scientist (NAYS), on 27th September, 2013.

CONFERENCES / SYMPOSIA / SEMINARS ATTENDED

1. Thirteenth International Nathiagali Summer College on Biotechnology (01-07-1988 to 07-07-1988) organized by Pakistan Atomic Energy Commission.
2. Fourth National Conference of Plant Scientists. Feb. 16-18, 1993, Ayub Agricultural Research Institute, Faisalabad.
3. International Symposium on Biotechnology for Sustainable Development. Dec. 15-20, 1993, National Institute of Biotechnology and Genetic Engineering, Faisalabad.
4. Fifth National Conference of Plant Scientists. March 28-30, 1995, National Agriculture Research Center, Islamabad.
5. Sixteenth Pakistan Congress of Zoology. April 13-15, 1996, Quaid-e-Azam University, Islamabad.
6. Inougaral International Conference on Genetics. Nov. 26-28, 1996, National Agriculture Research Center, Islamabad.
7. Nineteenth Pakistan Congress of Zoology. April 19-21, 1999, National Agriculture Research Center, Islamabad.
8. Seventh National Conference of Plant Scientists. November 14-16, 2000, Department of Botany, University of the Punjab, Lahore.
9. First International Weed Science Conference. October 23-26, 2003, NWFP Agricultural University, Peshawar, Pakistan.
10. 1st International Conference on Assessing Quality in Higher Education, December 11-13, 2006, University of the Punjab, Lahore.
11. 1st Symposium of Microbiology and Molecular Genetics on Genomics, Proteomics, Metabolomics: Recent Trends in Biotechnology. October 22-23, 2007, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
12. Seminar on "Commercialization of Biotechnology Products" organized by The Lahore Chamber of Commerce and Industry in Collaboration with National Commission on Biotechnology, Islamabad. October 30, 2007, LCCI, Lahore.
13. Seminar on "Transmission Electron Microscopy (EFTEM) Analysis", by Mr. Klaus Teufel, Nanotechnology Consulting Company, Germany jointly organized by Carl Zeiss SMT-Nanotechnology system Division and Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, October, 2007.

14. Seminar on Waste Disposal "Laboratory Waste Management ", organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, in collaboration with Mr. Junaid Habib Ullah, Shalimar Hospital, Lahore. 1st February, 2008.
15. Third National Seminar on "Intellectual Rights to Magic Methods." April 15-16, 2008, PC Hotel, Lahore organized by Patent Advisory Cell, PCSIR, Karachi.
16. One Day Symposium on "Microbial Resistant Paints" organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with Higher Education Commission of Pakistan, 17th April, 2008.
17. 2nd National Conference on Health Biotechnology. 27-28 May, 2008, Pakistan Academy of Sciences, Islamabad organized by National Commission on Biotechnology, Islamabad.
18. Attended Consultative Workshop with Stakeholders on "National Capacity Self Assessment", organized by Associates in Development (Pvt.) Ltd. under UNDP project at Defense Club, DHA, Lahore, July 14-15, 2008.
19. Seminar on "Mass Spectrometry" by Prof. Dr. David L. Smith, University of Nebraska, Lincoln, USA, organized by Institute of Chemistry, University of the Punjab, Lahore, March 30, 2009.
20. National Consultative Meeting on Commercialization of Agricultural Biotechnology jointly organized by National Commission on Biotechnology, Islamabad and The Lahore Chamber of Commerce and Industry at LCCI, Lahore, May 23, 2009.
21. Attended LAL-Limulus Amebocyte Lysate and Methodology Application Workshop for Endotoxin Testing organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with Pharm Canada Pakistan, June 11, 2009.
22. Conference on "Development and Commercialization of Biotechnology Products" organized by National Institute of Biotechnology and Genetic Engineering, Faisalabad in collaboration with National Commission on Biotechnology, Islamabad, June 19-20, 2009.
23. Symposium on "Modern Biotechnology – A Resource for Sustainable Development, July 4, 2009, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with Monsanto seeds at PC Hotel, Lahore.
24. "Sailing towards New Horizons", International Conference on Frontiers in Molecular Life Sciences, 16th to 18th September 2009, Colombo, Sri Lanka, organized by Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo, Sri Lanka.
25. Seminar on "Operational Handling and Troubleshooting of Fermenters" by Dr. Judith Law, Bioengineering, Switzerland, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, February 11, 2010.
26. Pre-Conference Workshop on Molecular Hematology, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, February 9, 2010.
27. Participated in "Lahore Biotech Cluster" at Armacost Science Building, Forman Christian College, Lahore, March 15, 2010.
28. Symposium on "Current Agro Biotechnology and Transgenic Plants", June 21, 2010, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore in collaboration with Monsanto at PC Hotel, Lahore and presented four Posters.
29. Second International Conference of Plant Scientists and 11th National Meeting of Plant Scientists, February 22-24, 2011, Biology Block, GC University Lahore.
30. Seminar on "Nanotechnologies: A new field for medicine" by Dr. Patrice Marche, INSERM, Grenoble, France organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, March 7, 2011.

31. National Seminar and Workshop on Environmental Toxicology and Health, March 8-9, 2011, organized by Department of Pharmacology and Toxicology, UVAS, Lahore in collaboration with Department of Clinical Neuroscience, University of Cambridge, UK.
32. Attended one day workshop on CMS training for faculty, 07 June, 2012. Organized by MMG Department, University of the Punjab, Lahore.
33. Attended “Bio-physicochemical basis for Technopreneurship” jointly organized by Department of Microbiology and Molecular Genetics & Institute of Business Administration, University of the Punjab, Lahore, April 2-3, 2013.
34. Attended Ninth International Biennial Conference of Pakistan Society for Microbiology (NIBC-PSM), organized by Department of Microbiology, University of Karachi, Karachi in collaboration with American Society for Microbiology, January 28-31, 2013.
35. Poster presentation (Aerobiological analysis of indoor and outdoor environments in different wards of a hospital in Lahore, Pakistan) at Bioaerosols and the Built Environment Conference 2013 at University of Leeds, UK organized by Faculty of Engineering, University of Leeds, June 26-27, 2013.
36. Attended One Day workshop “Basic Biosafety Measures in Research” organized by Department of Microbiology and Molecular Genetics, University of the Punjab in Collaboration with National Academy of Young Scientist (NAYS), on 27th September, 2013.

CHAPTERS IN INTERNATIONAL BOOKS

1. Anjum Nasim Sabri, Sabeen Sabri and Sikander Sultan. 2012. Metallurgical microscopy of bacterial biofilm representing Cr⁶⁺ conversion into Cr³⁺ by *Acinetobacter calcoaceticus*, *Staphylococcus aureus* and *Oscillatoria* strain. In: Méndez-Vilas, A. (Ed.). *Current Microscopy Contributions to Advances in Science and Technology*. FORMATEX RESEARCH CENTER, Zurbaran, 1, 2^a, Office 1, 06002 Badajoz, Spain. pp. 749-755.

RESEARCH PUBLICATIONS

1. Sikander Sultan, Shabana Bashir and Mehmood Akram. 1992. Allelopathic potential of three bamboo species. *Pakistan Journal of Agriculture*, **1(1)**: 59-67.
2. Sikander Sultan and Shahida Hasnain. 1994. Conjugal transfer of chromium resistant plasmids residing in pseudomonads. *Pakistan Journal of Zoology*, **26**: 219-226. (Impact Factor: 0.400; Citations = 2)
3. Sikander Sultan, Ali Asghar, Saeed Iqbal Zafar and Mehmood Akram. 1996. Allelopathic effects of associated weeds, cattle feed and manure on onion CV. Phalkara. *Pakistan Journal of Plant Sciences*, **2(2)**: 123-130.
4. **Sikander Sultan** and Shahida Hasnain. 2000. Hexavalent chromium resistant bacteria from effluents of electroplating: isolation, characterization and chromium reduction potential. *Pakistan Journal of Biological Sciences*, **3(3)**: 450-456.
5. Zaheer Ahmad Nasir and Sikander Sultan. 2002. Floristic, biological and leaf size spectra of weeds in gram, lentil, mustard and wheat fields of district Chakwal, Pakistan. *Pakistan Journal of Biological Sciences*, **5(7)**: 758-762.

6. Zaheer Ahmad Nasir and Sikander Sultan. 2003. Weed communities in the wheat fields of district Chakwal. *Sarhad Journal of Agriculture*, **19(1)**: 113-120.
7. Sikander Sultan and Shahida Hasnain. 2003. Pseudomonad strains exhibiting high level Cr(VI) resistance and Cr(VI) detoxification potential. *Bulletin of Environmental Contamination and Toxicology*, **71(3)**: 473-480.
8. Sikander Sultan and Zaheer Ahmad Nasir. 2003. Dynamics of weed communities in gram fields of Chakwal, Pakistan. *Asian Journal of Plant Sciences*, **2(17)**: 1198-1204.
9. Zaheer Ahmad Nasir and Sikander Sultan. 2003. Eco-taxonomic studies of weeds in groundnut fields of Chakwal. *Journal of Science & Technology*, **27**: 19-24.
10. Zaheer Ahmad Nasir and Sikander Sultan. 2004. Survey of weeds in mustard fields of district Chakwal, Pakistan. *Pakistan Journal of Biological Sciences*, **7(2)**: 279-286.
11. Sikander Sultan and Shahida Hasnain. 2005. Chromate reduction capability of a gram positive bacterium isolated from effluent of dyeing industry. *Bulletin of Environmental Contamination and Toxicology*, **75(4)**: 699-706.
12. Sikander Sultan and Shahida Hasnain. 2005. Plasmid mediated chromate resistance in bacteria isolated from industrial waste. *Pakistan Journal of Biological Sciences*, **8(12)**: 1771-1777.
13. Sikander Sultan and Shahida Hasnain. 2006. Characterization of an *Ochrobactrum intermedium* strain STCr-5 manifesting high level Cr(VI) resistance and reduction potential. *Enzyme and Microbial Technology*, **39(4)**: 883-888.
14. Zaheer Ahmad Nasir and Sikander Sultan. 2006. Noxious weeds of winter crops in District Chakwal, Pakistan. *International Journal of Agricultural Research*, **1(5)**: 480-487.
15. Sikander Sultan and Shahida Hasnain. 2007. Reduction of toxic hexavalent chromium by *Ochrobactrum intermedium* strain SDCr-5 stimulated by heavy metals. *Bioresource Technology*, **98(2)**: 340-344.
16. Sikander Sultan and Zaheer Ahmad Nasir. 2007. Intraannual variation in weed communities of lentil fields in Chakwal, Pakistan. *Pakistan Journal of Botany*, **39(5)**: 1471-1479.
17. Ian Colbeck, Zaheer Ahmad Nasir, Shahida Hasnain and Sikander Sultan. 2008. Indoor air quality at rural and urban sites in Pakistan. *Water, Air & Soil Pollution: Focus*, **8(1)**: 61-69.
18. Shabana Kausar, Qaisar Mahmood, Iftikhar Ahmad Raja, Afsar Khan, Sikander Sultan, Mazhar Amjad Gilani and Shahida Shujaat. 2012. Potential of *Arundo donax* to treat chromium contamination. *Ecological Engineering*, **42**: 256-259.
19. Sikander Sultan, Khansa Mubashar and Mohammad Faisal. 2012. Uptake of toxic Cr (VI) by biomass of exopolysaccharide producing bacterial strains. *African Journal of Microbiology Research*, **6**: 3329-3336.
20. Sikander Sultan and Shahida Hasnain. 2012. Chromium (VI) reduction by cell free extract of *Ochrobactrum anthropi* isolated from tannery effluent. *Bulletin of Environmental Contamination and Toxicology*, **89**: 152-157.
21. Zaheer Ahmad Nasir, Ian Colbeck, Sikander Sultan and Shakil Ahmad. 2012. Bioaerosols in residential micro-environments in low income countries: A case study from Pakistan. *Environmental Pollution*, **168**: 15-22.
22. Sidra Ilyas, Skinder Sultan and Abdul Rehman. 2012. Decolourization and degradation of azo Dye, Synozol Red HF6BN, by *Pleurotus ostreatus*. *African Journal of Biotechnology*, **11**: 15422-15429.
23. Mahwish Javaid and Sikander Sultan. 2013. Plant growth promotion traits and Cr (VI) reduction potentials of Cr (VI) resistant *Streptomyces* strains. *Journal of Basic Microbiology*, **53**: 420-428.

24. Muhammad Yasin, Muhammad Faisal and Sikander Sultan. 2013. Growth responses of *Triticum aestivum* after inoculating with *Pseudomonas* and *Stenotrophomonas*. African Journal of Microbiology Research, **7**: 1952-1956.
25. Shamsa Akbar, Sikander Sultan and Michael Kertesz. 2014. Bacterial community analysis in chlorpyrifos enrichment cultures via DGGE and use of bacterial consortium for CP biodegradation. World Journal of Microbiology and Biotechnology. DOI 10.1007/s11274-014-1699-8.

EDITED PROCEEDING

1. Hasnain, S., Jamil, N., Rehman, A., Faisal, M., Sabri, A.N. and **Sultan, S.** (eds) 2008. Proceeding of 1st International Symposium on Genomics, Proteomics and Metabolomics: *Recent Trends in Biotechnology*. Published by MMG, PU, Lahore. ISBN: 978-969-9324-00-0, Art Plus Press, Lahore.