

CURRICULUM VITAE

DR. ABDUL REHMAN

- 1. NAME OF FATHER** Noor Muhammad
- 2. DATE OF BIRTH** December 14, 1971
- 3. PRESENT ADDRESS** H. No. 211, Block No. 4,
Sector D-II, Green Town, Lahore
- 4. NATIONAL IDENTITY CARD NO** 35202-4351266-7
- 5. NATIONALITY** Pakistani
- 6. PRESENT POSITION** **Assistant Professor** in Department
of Microbiology and Molecular
Genetics, Punjab University, Lahore
- 7. AWARDED PRODUCTIVITY** Ministry of Science and Technology
AWARD (2005-2007, 2009-2012) based upon Impact Factor
- 8. FIELD OF SPECIALIZATION**
Environmental Microbiology/Cell and Molecular Biology/Biochemistry
- 9. HIGHER EDUCATION**
Ph. D
- 10. POST DOC RESEARCH**
Postdoc research from School of Biomolecular Sciences, Washington State
University, USA (2012 to 2014).
- 11. TEACHING EXPERIENCE**
Part time teacher in the Department of Microbiology and Molecular Genetics
from September 16, 2002 to December 22, 2002
Lecturer in the Department of Microbiology and Molecular Genetics from
December 23, 2002 to December 03, 2009.
Assistant Professor in the Department of Microbiology and Molecular Genetics
from December 04, 2009-to date.

12. RESEARCH PROJECTS

a International level

1. Use of tannery wastewater after microbial treatment for crop irrigation. Bio-Asie project with collaboration of ministry Affaires of France, 2011-2013 (10 000 €).

b. National level

1. Role of microorganisms in decontamination of arsenic from toxic polluted environment. HEC Project, 2007-2009, (Co-Principal Investigator), (3 years) (2.2 million PKR).
2. Potential use of bacteria and yeast in decontamination of cadmium polluted wastewater. HEC Project, 2011-2013, Principal Investigator (3 years) (1.391 million PKR).
3. Potential use of yeast in decontamination of heavy metals (Cu, Pb, Cr, As, Cd) from polluted wastewater. Pakistan Science Foundation Project, 2011-2013, Principal Investigator (3 years) (1.490 million PKR).
4. Isolation and characterization of cytolytic protein gene from local isolates of *Bacillus thuringiensis* HEC Project, 2016-2018, (Co-Principal Investigator), (3 years) (2.334 million PKR).

c. University level

1. Isolation of heavy metal resistant protozoan fauna surviving in stress conditions in industrial waste and their role in bioremediation. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2005-2006 (One year) (168,000PKR).
2. Doctoral Programme coordination Committee (DPCC) sanctioned an amount of Rs. 1,00,000PKR for chemicals kits for MS students, 2006.
3. Uptake of chromium by bacteria, isolated from tannery effluents and their potential use in bioremediation of wastewater. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2007-2008 (One year) (100,000PKR).

4. Isolation and characterization of xylan degrading yeasts from local environment. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2009-2010 (One year) (150,000PKR).
5. Isolation and characterization of α -amylase producing bacteria from local environment. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2010-2011 (One year) (150,000PKR).
6. Isolation and characterization of thermostable alkaline protease producing bacteria from local environment. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2011-2012 (One year) (150,000PKR).
7. Isolation and characterization of keratinase producing bacteria from soil contaminated with poultry waste. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2014-2015 (One year) (150,000PKR).
8. Vice-Chancellor, University of the Punjab, Lahore sanctioned an amount of Rs. 4,00,000PKR for chemicals to cater the research work of the PhD, M.Phil and B.Sc (Hons.) students, 20014-2015.
9. Isolation and characterization of tellurite resistant bacteria from industrial effluents. Approved by Research Cell, Quaid-e-Azam Campus, Punjab University, Lahore-54590, 2015-2016 (One year) (150,000PKR).

13. RESEARCH PUBLICATIONS

List of Publications in Journals Having Impact Factor (74)

| S.# | Name of Author | Complete Name of Journal and Address | Title of the Publication | Vol. No. & Page No. | Year Published | Impact Factor |
|-----|---|--------------------------------------|---|---------------------|----------------|---------------|
| 74 | Ramzan, M. and Rehman, A. | Pakistan journal of Zoology | Characterization of phenol degrading bacteria isolated from industrial effluents | 48 (6) 1865-1870 | 2016 | 0.478 |
| 73 | Khan, K., Rehman, A., Hussain, S.Z., Nisar, M.A., Zulfiqar, S. and Shakoori, A.R. | AMB Express | Cadmium resistance and uptake by bacterium, <i>Salmonella enterica</i> 43C, isolated from industrial effluent | 6 (1): 1-16 | 2016 | 2.16 |
| 72 | Naureen, A. and Rehman, A., | World Journal of Microbiology and | Arsenite Oxidizing Multiple Metal Resistant Bacteria Isolated from Industrial Effluent: Their | 32:133 | 2016 | 1.532 |

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|----|--|---|--|------------------------------|------|-------|
| | | Biotechnology | Potential Use in Wastewater Treatment | | | |
| 71 | Khan, K., Rehman, A. and Hussain, S.Z. | Chemosphere | Resistance and uptake of cadmium by yeast, <i>Pichia hampshirensis</i> 4Aer, isolated from industrial effluent and its potential use in decontamination of wastewater | 159 32-43 | 2016 | 3.698 |
| 70 | Ilyas, S., Rehman, A. , Varela, AC and Sheeha D | Journal of Proteomics | Proteomic analysis of an environmental isolate of <i>Rhodotorula mucilaginosa</i> after arsenic and cadmium challenge: Identification of a protein expression signature for heavy metal exposure | 141 47-56 | 2016 | 3.867 |
| 69 | Junaid, K., Rehman, A. , Jolliffe, D.A., Saeed, T., Wood, K. and Martineau, A.R., | BMC Pulmonary Medicine | Vitamin D deficiency associates with susceptibility to tuberculosis in Pakistan, but polymorphisms in <i>VDR</i> , <i>DBP</i> and <i>CYP2R1</i> do not | 16:73 | 2016 | 2.329 |
| 68 | Shahid, S.U., Shabana, Cooper, J., Beaney, K. E., Li, K., Rehman, A. and Humphries, S.E., | Lipids in Health and Disease | Effect of <i>SORT1</i> , <i>APOB</i> and <i>APOE</i> polymorphisms on LDL-C and coronary heart disease in Pakistani subjects and their comparison with Northwick Park Heart Study II | 15: 83 | 2016 | 2.137 |
| 67 | Shahid, S.U., Shabana, Cooper, J. A., Rehman, A. and Humphries, S.E. | Pakistan journal of Zoology | Association of <i>ACE</i> and <i>NOS3</i> Polymorphisms with Blood Pressure in a Case Control Study of Coronary Artery Disease in Punjab, Pakistan | 48 (4) 1125-1132 | 2016 | 0.478 |
| 66 | Raza, F.A., Sabri, A.N., Rehman, A. and Hasnain, S., | Iranian Journal of Science and Technology | Characterization of thermophilic alkaline lipase produced by <i>Staphylococcus aureus</i> suitable for leather and detergent industries | On line | 2016 | 0.128 |
| 65 | Shahid, S.U., Shabana, Rehman, A. and Hasnain, S. | Lipids in Health and Disease | Role of a common variant of Fat Mass and Obesity associated (<i>FTO</i>) gene in obesity and coronary artery disease in subjects from Punjab, Pakistan: a case control study | 15: 29 | 2016 | 2.137 |
| 64 | Gilani, R.A., Rafique, M., Rehman, A. , Munis, M.F.H., Rehman, S. and Chaudhary, H.J., | Journal of Basic Microbiology | Biodegradation of chlorpyrifos by bacterial genus <i>Pseudomonas</i> . a review. | 56 (2) 105-119 | 2016 | 1.585 |
| 63 | Khan, Z., Nisar, M.A., Hussain, S.Z., Arshad, M.N. and Rehman, A. , | Applied Microbiology and Biotechnology | Cadmium Resistance Mechanism in <i>Escherichia coli</i> P4 and Its Potential Use to Bioremediate Environmental Cadmium | 99(24) 10745-10757 | 2015 | 3.376 |
| 62 | Junaid, K., Rehman, A. , Jolliffe, D.A., Wood, K. and Martineau, A.R. | BMC Women's Health | High prevalence of vitamin D deficiency among women of child-bearing age in Lahore Pakistan, associating with lack of sun exposure and illiteracy | 15: 83 | 2015 | 1.353 |
| 61 | Khan, K., Hussain, S.Z., Rehman, A. , Zulfiqar, S. and Shakoori, A.R. | Pakistan Journal of Zoology | Evaluation of cadmium resistant bacterium, <i>Klebsiella pneumoniae</i> , isolated from industrial wastewater for its potential use to bioremediate environmental cadmium | 47(6) 1533-1543 | 2015 | 0.478 |
| 60 | Iqbal, S.A. and Rehman, A. | Brazilian Archives of Biology and Biotechnology | Characterization of lipase from <i>Bacillus subtilis</i> I-4 and its potential use in oil contaminated wastewater | 58 (5) 789-797 | 2015 | 0.468 |
| 59 | Junaid, K., Rehman, A. , Saeed, T., Jolliffe, D.A., Wood, K. and Martineau, A.R. | BMC Infectious Diseases | Genotype-independent association between profound vitamin D deficiency and delayed sputum smear conversion in pulmonary tuberculosis | 15: 275 | 2015 | 2.690 |
| 58 | Ilyas, S., Bukhari, D.A. and Rehman, A. | Pakistan Journal of Zoology | Decolourization of Synazol Red 6HBN by yeast, <i>Candida tropicalis</i> 4S, isolated from industrial wastewater | 47(4) 1181-1185 | 2015 | 0.478 |
| 57 | Bukhari, D.A. and Rehman, A. | Pakistan Journal of Zoology | Purification and characterization of α -amylase from <i>Bacillus subtilis</i> isolated from local environment | 47(4) 905-911 | 2015 | 0.478 |

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|----|--|--|---|----------------------------|------|-------|
| 56 | Ilyas, S. and Rehman, A. | Environmental Monitoring and Assessment | Oxidative stress, glutathione level and antioxidant response to heavy metals in multi-resistant pathogen, <i>Candida tropicalis</i> . | 187 (1) 4115 | 2015 | 1.679 |
| 55 | Shamim, S. and Rehman, A. | Journal of Basic Microbiology | Antioxidative enzyme profiling and biosorption ability of <i>Cupriavidus metallidurans</i> CH34 and <i>Pseudomonas putida</i> mt2 under cadmium stress | 55(3) 374-381 | 2015 | 1.585 |
| 54 | Ali, A. and Rehman, A. | Iranian Journal of Science & Technology | Uptake of mercury by a bacterium, <i>Pseudomonas</i> sp. AN29, isolated from industrial effluents and its potential use in wastewater treatment | 38A3 231-237 | 2014 | 0.128 |
| 53 | Ilyas, S., Rehman, A. , Varela, AC and Sheeha D | PLoS One | Redox proteomics changes in the fungal pathogen <i>Trichosporon asahii</i> on arsenic exposure: identification of protein responses to metal-induced oxidative stress in an environmentally-sampled isolate | 9(7) e102340 | 2014 | 3.057 |
| 52 | Shamim, S., Rehman, A. and Qazi, M.H. | Archive of Environmental Contamination and Toxicology | Cadmium resistance mechanism in the bacteria <i>Cupriavidus metallidurans</i> ch34 and <i>Pseudomonas putida</i> mt2. | 67(2) 149-157 | 2014 | 2.039 |
| 51 | Akram, M., Shafaat, S., Bukhari, D.A. and Rehman, A. | Pakistan Journal of Zoology | Characterization of a thermostable alkaline protease from <i>Staphylococcus aureus</i> S-2 isolated from chicken waste | 46(4) 1125-1132 | 2014 | 0.478 |
| 50 | Shamim, S. and Rehman, A. | Journal of Basic Microbiology | Physicochemical surface properties of <i>Cupriavidus metallidurans</i> CH34 and <i>Pseudomonas putida</i> mt2 under cadmium stress. | 54(4) 306-314 | 2014 | 1.585 |
| 49 | Shamim, S., Rehman, A. and Qazi, M.H. | Archive of Environmental Contamination and Toxicology | Swimming, swarming, twitching, and chemotactic responses of <i>Cupriavidus metallidurans</i> CH34 and <i>Pseudomonas putida</i> mt2 in the presence of cadmium | 66(3) 407-414 | 2014 | 2.039 |
| 48 | Shakoor, S., Aftab, S. and Rehman, A. | Pakistan Journal of Zoology | Characterization of cellulose degrading bacterium, <i>Bacillus megaterium</i> S3, isolated from indigenous environment. | 45(6) 1655-1662 | 2013 | 0.478 |
| 47 | Sulman, S. and Rehman, A. | Pakistan Journal of Zoology | Isolation and Characterization of Cellulose Degrading <i>Candida tropicalis</i> W2 from Environmental Samples | 45(3) 809-816 | 2013 | 0.478 |
| 46 | Ilyas, S. and Rehman, A. | Iranian Journal of Environmental Health Sciences & Engineering | Decolorization and detoxification of Synozol red HF-6BN azo dye, by <i>Aspergillus niger</i> and <i>Nigrospora</i> sp. | 10(12) 1-9 | 2013 | 2.280 |
| 45 | Ilyas, S., Sultan, S. and Rehman, A. | African Journal of Biotechnology | Decolourization and degradation of Azo Dye, Synozol Red HF6BN, by <i>Pleurotus ostreatus</i> . | 11(88) 1522-1529 | 2012 | 0.00 |
| 44 | Shakoori, F.R., Butt, A.M., Ali, N.M., Zahid, M.T., Rehman, A. and Shakoori, A.R. | Pakistan Journal of Zoology | Optimization of fermentation media for enhanced amino acids production by bacteria isolated from natural sources | 44 (4) 1145-1157 | 2012 | 0.478 |
| 43 | Shamim, S. and Rehman, A. | Pakistan Journal of Zoology | Cadmium resistance and accumulation potential of <i>Klebsiella pneumoniae</i> strain CBL-1 isolated from industrial wastewater. | 44 (1) 203-208 | 2012 | 0.478 |
| 42 | Shafaat, S., Akram, M. and Rehman, A. | African Journal of Microbiology Research | Isolation and characterization of a thermostable α -amylase from <i>Bacillus subtilis</i> | 5 (20) 3334-3338 | 2011 | 0.00 |
| 41 | Butt, S.A. and Rehman, A. | World Journal of Microbiology and Biotechnology | Isolation of arsenite-oxidizing bacteria from industrial effluents and their potential use in wastewater treatment | 27 2435-2441 | 2011 | 1.532 |
| 40 | Shakoori, F.R., Zafar, M.F., Fatehullah, A., Rehman, A. and Shakoori, A.R. | Pakistan Journal of Zoology | Response of glutathione level in a protozoan ciliate, <i>Stylonychia mytilus</i> , to increasing uptake of and tolerance to nickel and zinc in the medium. | 43(3) 569-574 | 2011 | 0.478 |

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|----|--|--|---|---------------------------|------|-------|
| 39 | Rehman, A. and Anjum M.S. | Environmental Monitoring and Assessment | Multiple metal tolerance and biosorption of cadmium by <i>Candida tropicalis</i> isolated from industrial effluents: glutathione as detoxifying agent. | 174 585-595 | 2011 | 1.679 |
| 38 | Usman, A., Khan, M.R. Mahfooz, M., Ali, M., Aslam, S. H. and Rehman, A. | Pakistan Journal of Zoology | Decolourization and degradation of textile azo dyes by <i>Corynebacterium</i> sp. isolated from industrial effluent | 43(1) 1-8 | 2011 | 0.478 |
| 37 | Rehman, A. | Russian Journal of Ecology | Heavy metals uptake by <i>Euglena proxima</i> isolated from tannery effluents and its potential use in wastewater treatment. | 42(1) 38-43 | 2011 | 0.456 |
| 36 | Rehman, A. and Anjum M.S. and Hasnain, S. | Journal of General and Applied Microbiology | Cadmium biosorption by yeast, <i>Candida tropicalis</i> CBL-1, isolated from industrial wastewater. | 56 359-368 | 2010 | 1.0 |
| 35 | Farah R. Shakoori, Tabassum, S., Rehman A. and Shakoori, A.R. | Pakistan Journal of Zoology | Isolation and characterization of Cr ⁶⁺ reducing bacteria and their potential use in bioremediation of chromium containing wastewater | 42(6) 651-658 | 2010 | 0.478 |
| 34 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Environmental Progress and Sustainable Energy | Resistance and uptake of heavy metals by <i>Vorticella microstoma</i> and its potential use in industrial wastewater treatment. | 29(4) 481-486 | 2010 | 1.631 |
| 33 | Farah R. Shakoori, Azil, Rehman, A. and Shakoori, A.R. | Pakistan Journal of Zoology | Isolation and characterization of arsenic reducing bacteria from industrial effluents and their potential use in bioremediation of wastewater | 42(2) 331-338 | 2010 | 0.478 |
| 32 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Pakistan Journal of Zoology | Multiple heavy metal tolerant ciliates, <i>Oxytricha fallax</i> and <i>Paramecium caudatum</i> , isolated from industrial effluents and their potential use in wastewater treatment | 42(2) 301-309 | 2010 | 0.478 |
| 31 | Rehman, A. , Butt, S.A. and Hasnain, S.. | African Journal of Biotechnology | Isolation and characterization of arsenite oxidizing <i>Pseudomonas lubricans</i> and its potential use in bioremediation of wastewater | 9(10) 1493-1498 | 2010 | 0.00 |
| 30 | Rehman, A. , and Anjum, M.S. | Water, Air, and Soil Pollution | Cadmium uptake by yeast, <i>Candida tropicalis</i> , isolated from industrial effluents and its potential use in wastewater clean-up operations | 205 149-159 | 2010 | 1.551 |
| 29 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Pakistan Journal of Zoology | Heavy metal induced total proteins profile of ciliates isolated from industrial wastewater | 41 (4) 245-251 | 2009 | 0.478 |
| 28 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Bulletin of Environmental Contamination and Toxicology | Heavy metal uptake by <i>Euplotes mutabilis</i> and its possible use in bioremediation of industrial wastewater | 83 130-135 | 2009 | 1.191 |
| 27 | Muneer, B., Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Bulletin of Environmental Contamination and Toxicology | Evaluation of consortia of microorganisms for efficient removal of hexavalent chromium from industrial wastewater | 82 597-600 | 2009 | 1.191 |
| 26 | Zahoor, A. and Rehman, A | Journal of Environmental Sciences | Isolation of Cr(VI) reducing bacteria from industrial effluents and their potential use in bioremediation of chromium containing wastewater | 21 (6) 814-820 | 2009 | 2.208 |

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|----|---|--|--|----------------------------|------|-------|
| 25 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | World Journal of Microbiology and Biotechnology | Uptake of heavy metals by <i>Stylonychia mytilus</i> and its possible use in decontamination industrial wastewater | 24 (1) 47-53 | 2008 | 1.532 |
| 24 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Bioresource Technology | Heavy metal resistant freshwater ciliate, <i>Euplotes mutabilis</i> , isolated from industrial effluents has potential to decontaminate wastewater of toxic metals | 99 (9) 3890-3895 | 2008 | 4.917 |
| 23 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Pakistan Journal of Zoology | Heavy metals resistant rotifers from a chromium contaminated wastewater can help in environmental clean-up treatment. | 40 (5) 309-316 | 2008 | 0.478 |
| 22 | Rehman, A. , Shuja, R. and Shakoori, A.R. | Pakistan Journal of Zoology | Tolerance of two ciliates, <i>Stylonychia mytilus</i> and <i>Paramecium caudatum</i> , isolated from industrial effluents to an organophosphate, endosulfan and their potential use in bioremediation of insecticide contaminated wastewater | 40 (4) 255-261 | 2008 | 0.478 |
| 21 | Rehman, A. , Farooq, H. and Hasnain, S. | Journal of Basic Microbiology | Biosorption of copper by yeast, <i>Loddermyces elongisporus</i> , isolated from industrial effluents: its potential use in wastewater treatment | 48 195-201 | 2008 | 1.585 |
| 20 | Rehman, A. , Zahoor, A., Muneer, B. and Hasnain, S. | Bulletin of Environmental Contamination and Toxicology | Chromium tolerance and reduction potential of a <i>Bacillus</i> sp.ev3 isolated from metal contaminated wastewater | 81 25-29 | 2008 | 1.191 |
| 19 | Rehman, A. , Ali, A. and Shakoori, A.R. | Pakistan Journal of Zoology | Biosorption of mercury by bacteria isolated from industrial effluents: potential use in bioremediation of wastewater | 40 (2) 115-122 | 2008 | 0.478 |
| 18 | Rehman, A. , Farooq, H. and Shakoori, A. R. | Pakistan Journal of Zoology | Copper tolerant yeast, <i>Candida tropicalis</i> , isolated from industrial effluents: its potential use in wastewater treatment | 39 (5) 405-412 | 2007 | 0.478 |
| 17 | Muneer, B., Farah R. Shakoori, Rehman, A. and Shakoori, A.R. | Pakistan Journal of Zoology | Chromium resistant yeast with multi-metal resistance isolated from industrial effluents and their possible use in microbial consortium for bioremediation of wastewater | 39 (5) 289-297 | 2007 | 0.478 |
| 16 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Pakistan Journal of Zoology | Potential use of a ciliate, <i>Vorticella microstoma</i> , surviving in lead contaminated industrial effluents in wastewater treatment | 39 (4) 259-264 | 2007 | 0.478 |
| 15 | Rehman, A. , Ali, A., Muneer, B. and Shakoori, A. R. | Pakistan Journal of Zoology | Resistance and biosorption of mercury by bacteria isolated from industrial effluents | 39 (3) 137-146 | 2007 | 0.478 |
| 14 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Pakistan Journal of Zoology | Seasonal variation in protozoan population in tanner effluents | 39 (2) 69-76 | 2007 | 0.478 |
| 13 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R. | Bulletin of Environmental Contamination and Toxicology | Multiple metal resistance and uptake by a ciliate <i>Stylonychia mytilus</i> , isolated from industrial effluent and its use in wastewater treatment. | 79(4) 410-414 | 2007 | 1.191 |
| 12 | Rehman, A. , Farah R. Shakoori and Shakoori, | World Journal of Microbiology and | Heavy metal resistant <i>Distigma proteus</i> (Euglenophyta) isolated from industrial effluents an | 23 (6) | 2007 | 1.532 |

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|----|---|--|--|---------------------------|------|-------|
| | A.R | Biotechnology | its possible role in bioremediation of contaminated wastewaters | 753-758 | | |
| 11 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R | Bulletin of Environmental Contamination and Toxicology | Uptake of heavy metals by a ciliate, <i>Tachysoma pellionella</i> , isolated from industrial effluents and its potential use in bioremediation of toxic wastewater | 77(3) 469-476 | 2006 | 1.191 |
| 10 | Rehman, A. , Farah R. Shakoori and Shakoori, A.R | Bulletin of Environmental Contamination and Toxicology | Heavy metal resistant ciliate, <i>Euplotes mutabilis</i> isolated from industrial effluents can decontaminate wastewater of heavy metals | 76(6) 907-913 | 2006 | 1.191 |
| 9 | Rehman, A. and Shakoori, A.R | Bulletin of Environmental Contamination and Toxicology | Uptake of lead by a ciliate, <i>Stylonychia mytilus</i> , isolated from effluents: potential use in and their role in bioremediation of wastewater | 75(2) 290-296 | 2005 | 1.191 |
| 8 | Shakoori, A.R. , Rehman, A. and Haq, R. U. | Bulletin of Environmental Contamination and Toxicology | Multiple metal resistance in the ciliate protozoan, <i>Vorticella microstoma</i> from industrial effluents and its potential in bioremediation of toxic waste | 72(5) 1046-1051 | 2004 | 1.191 |
| 7 | Qadir, A., Abbas, S. N. and Rehman, A. | Pakistan Journal of Zoology | Effect of sub lethal doses of mixture of benzene and corn oil on some haematological parameters and hepatic proteins of male albino mice | 36 (4) 342-344 | 2004 | 0.478 |
| 6 | Rehman, A. and Shakoori, A.R | Pakistan Journal of Zoology | Tolerance and uptake of cadmium and nickel by <i>Chlorella</i> sp., isolated from tannery effluents | 36 (4) 327-331 | 2004 | 0.478 |
| 5 | Rehman, A. and Shakoori, A.R | Pakistan Journal of Zoology | Isolation, Growth, Metal Tolerance and Metal uptake of the Green Alga, <i>Chlamydomonas</i> (Chlorophyta) and its role in bioremediation of heavy metals | 35 (4) 337-341 | 2003 | 0.478 |
| 4 | Rehman, A. and Shakoori, A.R | Bulletin of Environmental Contamination and Toxicology | Heavy metal resistant <i>Chlorella</i> spp., isolated from tannery effluents, and their role in remediation of hexavalent chromium in industrial wastewater | 66 (2) 542-547 | 2001 | 1.191 |
| 3 | Rehman, A. and Shakoori, A.R | Pakistan Journal of Zoology | Accumulation and reduction of hexavalent chromium by <i>Suaeda fruticosa</i> and <i>Trianthema mongyna</i> | 33 (4) 341-342 | 2001 | 0.478 |
| 2 | Haq, R., U., Rehman, A. and Shakoori, A.R | Pakistan Journal of Zoology | Survival, Culturing, Adaptation and metal resistance of various Rotifers and a Gastrotrich (minor phyla) Isolated from heavy polluted industrial effluents | 33 (3) 247-253 | 2001 | 0.478 |
| 1 | Haq, R. U., Rehman, A. and Shakoori, A.R. | Folia Microbiologica | Effect of dichromate on population and growth of various protozoa isolated from industrial effluents. | 45(3) 275-278 | 2000 | 1.335 |

List of Publications in Journals Having No Impact Factor (09)

| S.# | Name of Author | Name of Journal | Categorized by HEC as W/X/Y/Z:** | Vol. No. | Title of the Publication | Year Published |
|-----|------------------|------------------------------|----------------------------------|---------------|---|----------------|
| 9 | Bukhar, D.A. and | Punjab University Journal of | Y-category | 31 (2) | Isolation of bioactive compounds from exudate | 2016 |

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|---|---|---|---|---------------|---|------|
| | Rehman, A. | Zoology | | 237-242 | of edible fungus, <i>Pleurotus ostreatus</i> | |
| 8 | Ilyas, S. and Rehman, A. | Proceedings of Pakistan Congress of Zoology | - | 28 1-10 | Isolation of phenol degrading bacteria from industrial effluents and their potential use in wastewater treatment. | 2008 |
| 7 | Qazi, J. A., Andleeb, S., Rehman, A. and Shakoory, A.R. | Proceedings of Pakistan Congress of Zoology | - | 27 1-17 | Hexavalent chromium resistant bacteria isolated from industrial effluents and their potential use in bioremediation of toxic wastewater | 2007 |
| 6 | Rehman, A. , Farah, R. Shakoory and Shakoory, A.R | Proceedings of Pakistan Congress of Zoology | - | 26 131-153 | Toxicity and Uptake of Heavy Metals in Protozoa-A Review. | 2006 |
| 5 | Rehman, A. , Farah, R. Shakoory and Shakoory, A.R | Proceedings of Pakistan Congress of Zoology | - | 25 163-178 | Toxicity and Uptake of Chromium and Lead by Protozoa-A Review. | 2005 |
| 4 | Shakoory, A.R., Javed, S. Khurshid, N. and Rehman, A. | Proceedings of Pakistan Congress of Zoology | - | 21 23-52 | Seasonal variation in chromium-resistant bacterial population in industrial effluents. | 2001 |
| 3 | Haq, R.U., Mahmood, A., Rehman, A. , Ali, S. S. and Shakoory, A.R. | Punjab University Journal of Zoology | - | 12 107-113 | Predominance of lead resistant and lead processing bacteria in industrial and sewage wastes | 1997 |
| 2 | Haq, R.U., Rehman, A. and Shakoory, A.R. | Proceedings of Pakistan Congress of Zoology | - | 21 23-52 | A lead-resistant bacterium from industrial effluents and feasibility of its exploitation for detoxification of lead in the environment | 1997 |
| 1 | Akhtar, M. Naseem, A. and Rehman, A. | Punjab University Journal of Zoology | - | 11 41-50 | Comparative study of some dentitions of <i>Selenoportax vexillarius</i> Pilgrim and <i>Selenoportax lydekkeri</i> Pilgrim (Artiodactyla, Bovidae, Mammalia) | 1996 |

14. Books Authored:

Protozoan Fauna of Industrial Wastes and their Role in Bioremediation (2011), VDM Verlag Dr. Müller GmbH & Co. KG, Dudweiler Landstr. 99, 66123 Saarbrücken, Germany.

15. RESEARCH THESES SUPERVISED

a- B.Sc. (Hons.) students

| No. | Name of Student | Class | Year | Topic of Thesis |
|-----|-----------------|---------------|--------|--|
| 1 | Ashfaq Ali | B.Sc. (Hons.) | 2005-6 | Uptake of mercury by bacteria, isolated from industrial effluents and their potential use in bioremediation of wastewater. |

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|----|---------------------|------------------|---------|--|
| 2 | Hina Farooq | B.Sc. (Hons.) | 2006-7 | Copper resistant yeast strains isolated from industrial effluents and their potential to uptake copper from the wastewater. |
| 3 | Ahmed Zahoor | B.Sc. (Hons.) | 2006-7 | Isolation of Cr ⁶⁺ reducing bacteria from industrial effluents and their potential use in bioremediation of chromium containing wastewater. |
| 4 | Sohail Anjum | B.Sc. (Hons.) | 2007-8 | Occurrence of yeasts in industrial effluents and their behaviour in the presence of cadmium. |
| 5 | Awais Sharjeel Butt | B.Sc. (Hons.) | 2007-8 | Isolation and characterization of arsenate reducing bacteria from industrial effluents |
| 6 | Ayesha Nawaz | B.Sc. (Hons.) | 2007-8 | Isolation and characterization of yeasts for ethanol production. |
| 7 | Sarah Shafat | B.Sc. (Hons.) | 2008-9 | Isolation of α -amylase producing bacteria from local environment. |
| 8 | Sadia Usman | B.Sc. (Hons.) | 2008-9 | Isolation and characterization of ethanol producing bacteria from local environment. |
| 9 | Mehwish Akram | B.Sc. (Hons.) | 2009-10 | Isolation of proteases producing bacteria from local environment. |
| 10 | Sadaf Suleman | B.Sc. (Hons.) | 2009-10 | Isolation and characterization of cellulase producing yeasts from local environment. |
| 11 | Huma Sohail | B.Sc. (Hons.) | 2010-11 | Isolation and characterization of chitinase in Gram-positive bacteria |
| 12 | Mazhar Hussain | B.Sc. (Hons.) | 2010-11 | Characterization and optimization of phytase from yeasts isolated from industrial wastewater |
| 13 | Anood Sabir | B.Sc. (Hons.) | 2011-12 | Characterization of glutathione S-transferase from yeast isolates. |
| 14 | Nadia Naseer | B.Sc. (Hons.) | 2012-13 | Decolourization and degradation of textile dyes by yeast isolated from industrial effluents. |
| 15 | Saima Amin | B.Sc. (Hons.) | 2014-15 | Characterization of tellurite reducing yeasts from industrial wastewater |
| 16 | Maryam Aslam | B.Sc. (Hons.) | 2015-16 | Isolation and characterization of β -galactosidase from bacteria |
| 17 | Ambreen Naz | B.Sc. (Hons.) | 2015-16 | Characterization of inulinase from yeast strains |

b- M.Sc. students

| No. | Name of Student | Class | Year | Topic of Thesis |
|-----|-----------------|-------|---------|---|
| 1 | Ali Ammar | M.Sc. | 2009-10 | Isolation and characterization of α -amylase producing yeasts from natural environment |
| 2 | Memoona Ramzan | M.Sc. | 2009-10 | Degradation of phenol by locally isolated bacterial strains |
| 3 | Amtul Moeez | M.Sc. | 2009-10 | Glutathione as detoxifying agent in yeasts under metal stress |
| 4 | Ayesha Naureen | M.Sc. | 2010-11 | Isolation and characterization of lipase producing yeasts from industrial wastewater |
| 5 | Ghosia Afzal | M.Sc. | 2010-11 | Culturing and growth of <i>Chlorella</i> sp. in industrial wastewater for biofuel production |
| 6 | Sajida Parveen | M.Sc. | 2010-11 | Characterization of azo dye degrading bacteria and their potential use in decolourization of wastewater |

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|----|----------------|-------|---------|--|
| 7 | Rabia Tabassum | M.Sc. | 2011-12 | Decolourization of azo dyes by bacteria |
| 8 | Aqsa Imtiaz | M.Sc. | 2012-13 | Molecular characterization of feather degrading bacteria from poultry wastes. |
| 9 | Asma Akhtar | M.Sc. | 2014-15 | Isolation and characterization of tellurite resistant bacteria from industrial effluents |
| 10 | Sana Shehzadi | M.Sc. | 2015-16 | Isolation and characterization of oil degrading bacteria from industrial effluents |

c- M.S/M.Phil students

| No. | Name of Student | Class | Year | Topic of Thesis |
|-----|-------------------|--------|-----------|---|
| 1 | Tahir Afshan | M.S. | 2007-8 | Ethanologenic potential of bacteria from acid saccharified sugarcane bagasse. |
| 2 | Shumaila Shakoor | M.S. | 2008-9 | Isolation of cellulose utilizing bacteria from wastes of fruits. |
| 3 | Sidra Ilyas | M.Phil | 2009-10 | Decolourization of azo dye synazol red 6BN by fungi |
| 4 | Amina Elahi | M.Phil | 2009-10 | Isolation and characterization of xylan degrading yeasts from local environment. |
| 5 | Syeda Abeer Iqbal | M.S. | 2010-11 | Characterization of lipase from indigenous bacteria inhabiting oil contaminated environment |
| 6 | Tahira Bibi | M.Phil | 2010-11 | Antioxidative response to cadmium and copper in yeast cells |
| 7 | Mehvish Ajaz | M.Phil | 2011-12 | Isolation and characterization of bacteria from industrial effluents and their potential use in Cr-contaminated wastewater |
| 8 | Sadaf Sulman | M.S. | 2011-12 | Ethanol producing yeasts from indigenous environment |
| 9 | Ayesha Naureen | M.Phil | 2012-2013 | Isolation and molecular characterization of arsenite resistant bacteria from industrial effluents and their potential use in wastewater treatment |
| 10 | Aqsa Imtiaz | M.Phil | 2014-15 | Characterization of glucose-6-phosphate dehydrogenase in bacterial strains |
| 11 | Wajiha Akram | M.S. | 2015-16 | Characterization and purification of tannase from bacterial strains |

16. PH.D STUDENTS SUPERVISED

| No. | Name of Student | Class | Year | Topic of Thesis |
|-----|-----------------|-------|---------|--|
| 1 | Saba Shamim | Ph.D | 2009-13 | Comparative analysis of metal resistance, accumulation and antioxidant enzymes in <i>Cupriavidus metallidurans</i> CH34 and <i>Pseudomonas putida</i> mt2 during cadmium stress (Completed: Ph.D. (R)/07/2016). |
| 2 | Sidra Ilyas | Ph.D | 2011-15 | Role of glutathione in determining metal stress in yeasts (Completed: Ph.D. (R)/63/2015). |
| 3 | Kashaf Junaid | Ph.D | 2011-15 | Prevalence of vitamin D deficiency in pulmonary TB patients and comparison with general populations (Completed: Ph.D. (R)/108/2015). |

| | | | | |
|---|------------------------|------|-------------|---|
| 4 | Saleem Ullah Shahid | Ph.D | 2009- 14 | Biochemical and genetic risk analysis of coronary artery disease patients in Pakistani population (Completed: Ph.D. (R)/61/2016). |
|---|------------------------|------|-------------|---|

17. PH.D STUDENTS CURRENTLY UNDER SUPERVISION

| No. | Name of Student | Class | Year | Topic of Thesis |
|-----|-----------------|-------|---------------|---|
| 1 | Zaman Khan | Ph.D | 2011- 15 | Cadmium resistant bacteria and yeasts: their potential use in decontamination of metal polluted wastewater (Thesis submitted for evaluation). |
| 2 | Amina Elahi | Ph.D | 2012- 2016 | Successive use of microorganism to remove chromium from tannery effluents (Thesis writing). |
| 3 | Mehvish Ajaz | Ph.D | 2013- 2017 | Azo dys removal by bacteria from industrial wastewater. |
| 4 | Ayesha Naureen | Ph.D | 2014- 2018 | Effect of tellurite on abnormal cell line. |
| 5 | Shahid Sher | Ph.D | 2016- 2020 | Arsenic resistance and removal potential by bacteria isolated from industrial wastewater |

18. RESEARCH COLLABORATION

- 1- School of Biological Sciences, University of the Punjab, Lahore
- 2- Department of Chemistry (SZH), SBA School of Sciences and Engineering (SBASSE) Lahore, University of Management Sciences (LUMS), DHA, Lahore Cantt-54792, Pakistan
- 3- Department of Zoology, University of the Punjab, Lahore

19. MEMBERSHIP IN SCIENTIFIC SOCIETIES

- 1- Life Fellow, Zoological Society of Pakistan
- 2- Member, Society of Environmental Toxicology and Chemistry, USA

20. REVIEWER OF SCIENTIFIC IMPACT FACTOR JOURNALS

- 1-Environmental Progress and Sustainable Energy
- 2-Journal of Hazardous Materials
- 3-Canadian Journal of Microbiology
- 4-Journal of Geography and regional Planning
- 5-African Journal of Environmental Science and Technology
- 6-Pakistan Journal of Zoology
- 7-Molecular Biology Reports
- 8-Process Biochemistry
- 9-Biodegradation
- 10-BMC Microbiology

- 11-African Journal of Microbiology Research**
- 12-Journal of Basic Microbiology**
- 13-Journal of Taibah University for Science**
- 14-Science Domain International**
- 15-Bioremediation Journal**
- 16-Environmental Pollution**

21. CONFERENCES ATTENDED/PAPERS PRESENTED/ABSTRACTS

INTERNATIONAL

1. **Rehman, A.** and Shakoori, A.R. 2006. Heavy metal resistant ciliates, isolated from industrial effluents can decontaminate wastewater of heavy metal. (Abstract). SETAC Asia/Pacific, under the theme of "Growth with a Limit: the Integration of Ecosystem Protection for Human Health Benefits" held under the auspices of **University of Peking, China**, on September 18-20, 2006.
2. **TWAS/BVA.NXT** Conference on **Biovision Alexandria 2008 at Alexandria, Egypt**, organized by European Molecular Biology Laboratory, 11th-16th April, 2008 and presented poster entitled "Uptake of heavy metals by ciliates isolated from industrial effluents and their possible use in wastewater treatment".
3. EMBL Conference on **Chemical Biology 2008 at Heidelberg, Germany**, organized by European Molecular Biology Laboratory, 8th-11th October, 2008 and presented poster entitled "Isolation, characterization and resistance of yeast against metal ions and its possible role in wastewater treatment".
4. 4th Conference on Physiology of Yeast and Filamentous Fungi held under the auspices of **Delft University of Technology, Rotterdam, The Netherlands**, June 1-4, 2010 and presented poster entitled "Decolourization of azo dye Synozol Red HF6-BN by fungi".
5. Attended 23rd Annual Congress of the **European Respiratory Society, Barcelona, Spain**, September 7-8, 2013 and presented research work entitled "Vitamin D deficiency and delayed sputum smear conversion in pulmonary TB in Pakistan"

NATIONAL

1. **REHMAN, A. HAQ, R.U AND SHAKOORI, A.R.**, 1996. Isolation and characterization of lead resistant bacteria from industrial effluents. (Oral Presentation). Sixteenth Pakistan Congress of Zoology held under the auspices of Quaid-i-Azam University, Islamabad on April 13-15, 1996.
2. **REHMAN, A. HAQ, R.U AND SHAKOORI, AR**, 1998. Adaptation of ciliate protozoans to higher concentrations of heavy metals ions. (Oral Presentation). Eighteenth Pakistan Congress of Zoology held under the auspices of University, of the Punjab on April 20-22, 1998.

3. **REHMAN, A. HAQ, R.U AND SHAKOORI, A.R.**, 1999. Metal resistance in protozoa isolated from the industrial effluents. (Oral Presentation). Nineteenth Pakistan Congress of Zoology held under the auspices of National Agricultural Research Council, Islamabad on April 19-21, 1999.
4. **ASHRAF, S. HAQ, R.U. REHMAN, A. AND SHAKOORI, A.R.**, 1999. A study on growth and survival of lead resistant protozoa. (Abstract). Nineteenth Pakistan Congress of Zoology held under the auspices of National Agricultural Research Council, Islamabad on April 19-21, 1999.
5. **REHMAN, A. AND SHAKOORI, A.R.** 2000. Seasonal variation of the protozoan fauna isolated from industrial wastes of tanneries of Kasur (Oral Presentation). Twentieth Pakistan Congress of Zoology held under the auspices of University of Sindh, Jamshoro on April 28-30, 2000.
6. **ASHRAF, S. REHMAN, A. HAQ, R.U. AND SHAKOORI, A.R.** 2000. Uptake of lead by a ciliate, *Stylonychia mytilus*, isolated from industrial effluents and its potential use in bioremediation of wastewater. (Abstract). Twentieth Pakistan Congress of Zoology held under the auspices of University of Sindh, Jamshoro on April 28-30, 2000.
7. **REHMAN, A. AND SHAKOORI, A.R.** 2001. Isolation and culturing of protozoa from industrial effluents and their role in bioremediation (Abstract). 21st Pakistan Congress of Zoology held under the auspices of University of Agriculture, Faisalabad on March 15-17, 2001.
8. **REHMAN, A. AND SHAKOORI, A.R.** 2002. Isolation and culturing of protozoa from industrial wastes and their role in remediation of heavy metals (Abstract). 22nd Pakistan Congress of Zoology held under the auspices of University of Azad Jammu and Kashmir, Muzaffarabad on April 16-18, 2002.
9. **REHMAN, A. AND SHAKOORI, A.R.** 2003. Heavy metal resistance in a ciliate in protozoan, *Oxytricha*, isolated from tannery effluents and its role in bioremediation of toxic waste (Abstract). 23rd Pakistan Congress of Zoology held under the auspices of University of Arid Agriculture, Rawalpindi on March 03-05, 2003.
10. **REHMAN, A. AND SHAKOORI, A.R.** 2003. Heavy metal resistant Rotifers from chromium contaminated wastewater can help in environmental clean up. (Poster presentation) 7th International Conference. Pakistan Society for Biochemistry and Molecular Biology, University of the Punjab, Lahore on April 02-05, 2003.
11. **REHMAN, A. AND SHAKOORI, A.R.** 2004. Multiple metal resistances in the ciliate protozoan, *Vorticella microstoma* from industrial effluents and its potential in bioremediation of toxic waste. (Abstract). 24nd Congress of Zoology held under the auspices of University of Allama Iqbal Open University Islamabad on March 30-April 01, 2004.
12. **REHMAN, A. AND SHAKOORI, A.R.** 2005. Multiple metal resistance in ciliates, isolated from industrial effluents and role of protozoa in bioremediation of toxic waste. (Abstract). 25th Congress of Zoology held under the auspices of University of Sindh Agriculture, Tandojam, on March 1-3, 2005.

13. NIKHAT, R. **REHMAN, A.** AND SHAKOORI, A.R. 2005. Uptake of Endosulfan by ciliates; *Stylonychia mytilus* and *Paramecium caudatum*, isolated from industrial effluents and their potential use in bioremediation of wastewater (Abstract). 25th Congress of Zoology held under the auspices of University of Sindh Agriculture, Tandojam, on March 1-3, 2005.
14. **REHMAN, A.** AND SHAKOORI, A.R. 2005. Multiple metal resistance in *Oxytricha fallax*, isolated from industrial effluents and role of ciliate in bioremediation of toxic wastes (Abstract). 4th International Symposium on Genetic Engineering and Biotechnology “Genomics, Bioinformatics, Biotechnology and Economic Development” held under the auspices of Centre for Molecular Genetics, University of Karachi on December 4-8, 2005.
15. **REHMAN, A.** AND SHAKOORI, A.R. 2006. Heavy metal resistant ciliates, isolated from industrial effluents can decontaminate wastewater of the heavy metals. (Abstract). 26th Congress of Zoology held under the auspices of University of the Punjab, Lahore, on April March 4-6, 2006.
16. ALI, A. AND **REHMAN, A.** 2006. Uptake of mercury by bacteria, isolated from industrial effluents and their potential use in bioremediation of wastewater. (Abstract). 26th Congress of Zoology held under the auspices of University of the Punjab, Lahore, on April March 4-6, 2006.
17. Participated in “Conference of Life Scientists” held under the auspices of University Bahauddin Zakariya University, 13-14-11-2006.
18. **REHMAN, A.** AND SHAKOORI, A.R. 2007. Uptake of chromium and lead by ciliates isolated from industrial effluents and their potential use in bioremediation of wastewater (Abstract). 27th Congress of Zoology held under the auspices of Bahauddin Zakariya University, Multan, on Feb- March 27-02--01-03-2007.
19. **REHMAN, A.** AND SHAKOORI, A.R. 2007. Heavy metal resistant microorganisms, isolated from industrial effluents can decontaminate wastewater of heavy metals (Abstract). National seminar on “Effect of pollution water on quality and aquatic life” held under the auspices of National Agriculture Research Centre, Islamabad, on June 26-27-06-2007.
20. Participated in “Conference of Life Scientists” held under the auspices of University Bahauddin Zakariya University, 16-18-12-2007.
21. **REHMAN, A.** AND SHAKOORI, A.R. 2008. Occurrence of yeasts in industrial effluents and their behavior in presence of cadmium (Abstract). 28th Congress of Zoology held under the auspices of Government College University, Faisalabad, on March 18-20, 2008.
22. Participated in International Symposium on “Glycoproteins in Human and Diseases” held under the auspices of School of Biological Sciences, University of the Punjab, Lahore, 27-29-05-2008.

23. **REHMAN, A.**, 2009. Isolation of α -amylase from bacteria isolated from the local environment (Abstract). 29th Congress of Zoology held under the auspices of University of Sindh, Jamshoro on February 24-26, 2009.
23. **REHMAN, A.** 2010. Decolourization of azo dye synozol red HF6BN by fungi. 30th Congress of Zoology held under the auspices of University of Agriculture, Faisalabad on March 2-4, 2010.
24. **SIDRA ILYAS AND REHMAN, A.**, 2011. Decolourization and detoxification of azo dye Synozol Red HF6BN by fungi. 31th Congress of Zoology held under the auspices of University of Azad Jammu and Kashmir, Muzaffarabad, on April 19-21, 2011.
25. **REHMAN, A.**, 2012. Isolation and characterization of xylan degrading yeasts from local environment. 32 Congress of Zoology held under the auspices of GC University, Lahore, on March 6-8, 2012.
26. Attended a seminar on “Microbial degradation of polychlorophenols: pathways, reactions, and gene organization” held under the auspices of School of Biomolecular Sciences, **Washington State University, USA**, February 07, 2013.
27. Attended a seminar on “Mathematical models and experimental evolution to study genetic interactions and evolution of synthetic microbial communities” held under the auspices of School of Biomolecular Sciences, **Washington State University, USA**, March 28, 2013.
28. Attended and presented research work in 34th Pakistan Congress of Zoology (International) held at Bahauddin Zakariya University, Multan on February 25-27, 2014.
29. Participated in International Conference on “**Innovative Biological and Public Health Research**” (International) held at Department of Zoology, GC University, Lahore, on May 6-8, 2014.
30. Work presented by Shahid, S.U., Cooper, J.A., **Rehman, A.** and Humphries, S.E., Effect of sorti, APOB and APOE polymorphisms on LDL-C in British and Pakistani people and their association with risk of CAD in Pakistani population
31. Attended and presented research work in 35th Pakistan Congress of Zoology (International) held at Centre of Excellence in Marine Biology, University of Karachi, Karachi, on March 1-04, 2015.
32. Attended and presented research work in 10th Biennial International Conference of Pakistan Society for Microbiology "**Exploring Microbes for Future Endeavours**" held at Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, on March 25-28, 2015.

33. Participated in event entitled " Diversity in Microbiology: A Crosstalk" held at Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, on December 17, 2015.
34. Attended and presented research work in 36th Pakistan Congress of Zoology (International) held at University of Sindh, Jamshoro, on February 16-18, 2016.
35. Participated in event entitled "Moral Quality Day" organized by University of the Punjab and Virutal University of Pakistan, on April 05, 2016.
36. **Guest Speaker** in event entitled "National Symposium on Biotechnology and Bioengineering: Application and Advantages" organized by Lahore College Women University, Lahore and Society for the Promotion of Science and Technology, on May 12, 2016.
37. Attended and presented research work in event entitled "Recent Advances and Challenges in Molecular Biology, Biochemistry and Biotechnology" organized by Centre for Advanced Drug Research (CADR) ,Comsats Institute of Information Technology, Abbottabad, on August 25-27, 2016.
38. **Invited Speaker** in event entitled "Craft of Scientific Writing-A Two-Day Intensive Workshop on Scientific Writing and Publishing" organized by Biosafety and Bio-resource Committee and Tumor Metabolism Lab, University of the Punjab, Lahore, on December 6-7, 2016.

22. HEC WORKSHOPS/TRAINING COURSES ATTENDED

Bee Keeping Training Course offered by PARC Honeybee Research Institute and Department of Zoology, University of the Punjab, Lahore (August 15-17, 1995).

Bee Keeping Training Course offered by PARC Honeybee Research Institute and Cell and Molecular Biology Lab., Department of Zoology, University of the Punjab, Lahore (June 5-7, 2000).

Participated as Member Organizing Committee and Instructor in the workshop on "**Microbiological and Genetical Techniques for Degree Colleges Teachers**" (June 7-12, 2004).

Attended workshop on "**Self Assessment Manual**" offered by Institute of Chemical Engineering and Technology, University of the Punjab, Lahore (December 18, 2006).

Ist Symposium of Microbiology and Molecular Genetics on **Genomics, Proteomics, Metabolomics: Recent trends in Biotechnology** organized by

department of Microbiology and Molecular Genetics, University of the Punjab, 2007.

One day workshop on “Fluorescent Microscopy: Introduction and Applications” organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore on September 24, 2011.

Participated and presented poster National Conference on "Trends in Biochemistry and Molecular Biology" held under the auspices of Department of Biochemistry, Quaid-i-Azam University, Islamabad, on February 21, 2012.

Attended workshop on "The Prevention and Control of Dengue Vectors" held under the auspices of Department of Zoology, GC University, Lahore, November 5-8, 2012.

Attended One day workshop on “**Thomson Reuters ENDNOTE**” offered by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (February 20, 2014).

Acted as a resource person seminar on “**Scientific Writing: Guidelines, Issues and Solutions**” organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (March 27, 2014).

Attended One day workshop on “**Biosafety and Risk Assessment**” offered by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (April 19, 2014).

Participated in the 1st International seminar on “**Soil Health Reclamation Approaches**” organized by College of Earth and Environmental Sciences, University of the Punjab, Lahore (June 11, 2014).

Participated One day symposium on “**Recent Trends in Molecular Therapeutics**” organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (August 19, 2014).

Participated as Member of Organizing Committee in one day symposium on “**Emerging Issues of Multidrug Resistance: A Threat to the Globe**” organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore (October 2, 2014).

Participated as member of Organizing Committee in 10th Biennial International Conference of Pakistan Society for Microbiology “**Exploring Microbes for Future Endeavours**” held at Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, on March 25-28, 2015.

Attended One day seminar on “**Quality Assurance in Education**” offered by Quality Enhancement Cell in collaboration with PIQC Institute of Quality, University of the Punjab, Lahore, on April 3, 2015.

Attended One day workshop on "**Eukaryotic Cell Culture Techniques**" offered by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, on April 28, 2015.

Attended One day workshop on "**Western Blotting**" offered by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, on May 5, 2015.

23. PROFESSIONAL HONORS

- 1- Member, Board of Studies, Department of Microbiology and Molecular Genetics, Punjab University, Lahore
- 2- Member, Board of Studies, Department of Zoology, Hazara University Mansehra, NWFP
- 3- Member, Board of Studies, Biological Sciences, University of Central Punjab, Lahore
- 4- Member, Purchase Committee, Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore
- 5- Member, Purchase Committee, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore
- 6- External Examiner [M.Phil, M.Sc. B.Sc. (Hons.)]

Department of Zoology, Punjab University, Lahore

Department of Zoology, GCU, Lahore

Life Sciences, Lahore University, Lahore

Life Sciences, Hazara University Mansehra, NWFP

Department of Microbiology, Kohat University, KPK

- 7- Member, Jury for "Urdu Debate" competition, 2015, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore
- 8- Coordinator Co-curricular activities, 2016, Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore

24. RECOGNITION CERTIFICATES

Participated in **Science Model Competition** held under the auspices of Science Museum, Organization for Education, Lahore and Pakistan Science Foundation, Islamabad (October 26, 1995).

Zoological Society of Pakistan recognizes with gratitude the invaluable help and contributions in 24th Pakistan Congress of Zoology (International) held under the auspices of Allama Iqbal Open University, Islamabad (March 30-April 1, 2004).

Zoological Society of Pakistan recognizes with gratitude the invaluable help and contributions in 26th Pakistan Congress of Zoology (International) held under the

auspices of Department of Zoology, University of the Punjab, Lahore, on April 4-6, 2006.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in Twenty-seventh Pakistan Congress of Zoology (International) held at University of the Bahauddin Zakariya University, Multan, February 27-March 1, 2007.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in Twenty-eighth Pakistan Congress of Zoology (International) held at Government College University, Faisalabad, on March 18-20, 2008.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in Twenty-ninth Pakistan Congress of Zoology (International) held at University of Sindh, Jamshoro on February 24-26, 2009.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in 30th Pakistan Congress of Zoology (International) held at University of Agriculture, Faisalabad on March 2-4, 2010.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in 31th Pakistan Congress of Zoology (International) held at University of Azad Jammu and Kashmir, Muzaffarabad on April 19-21, 2011.

3rd poster prize for poster entitled “Screening and characterization of high activity of protease exhibiting bacteria” in 31th Pakistan Congress of Zoology (International) held at University of Azad Jammu and Kashmir, Muzaffarabad on April 19-21, 2011.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in 32nd Pakistan Congress of Zoology (International) held at Government College University, Lahore on March 6-8, 2012.

3rd poster prize for poster entitled “Isolation and characterization of cellulose producing yeasts from local environment” in 32nd Pakistan Congress of Zoology (International) held at Government College University, Lahore on March 6-8, 2012.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in 34th Pakistan Congress of Zoology (International) held at Bahauddin Zakariya University, Multan on February 25-27, 2014.

Co-chaired “Cell and Molecular Biology session” in International Conference on Innovative Biological and Public Health Research (International) held at Department of Zoology, GC University, Lahore, on May 6-8, 2014.

Chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in 35th Pakistan Congress of Zoology (International) held at Centre of Excellence in Marine Biology, University of Karachi, Karachi, on March 1-04, 2015.

Co-chaired “Cell Biology, Molecular Biology, Genetics, Physiology and Toxicology session” in 36th Pakistan Congress of Zoology (International) held at University of Sindh, Jamshoro, on February 16-18, 2016.

25. Working as "**Editor Assistant**" for **Pakistan Journal of Zoology** (an impact factor journal) since 2008 and **Treasurer, Zoological Society of Pakistan** for the period of 2013 to 2016.

26. Awards/Gold Medals

Awarded travelling grant from TWAS/BVA.NXT to attend conference on **Biovision Alexandria 2008 at Alexandria, Egypt**, organized by European Molecular Biology Laboratory, 11th-16th April.

Awarded Prof. Dr. Mirza Azhar Beg Gold Medal 2009 on out standing contributions in the field of Environmental Biology by the Zoological Society of Pakistan.

Awarded PAS Gold Medal 2010 on outstanding contributions in the field of Zoology (Environmental Biology) by the **Pakistan Academy of Sciences**.