

CURRICULUM VITÆ

PERSONAL PROFILE

Name: Rida Batool
Father Name: Syed Anjum Raza Zaidi
Sex/Status: Female/ Married
Place of birth: Lahore, Pakistan

CONTACT

Department of Microbiology and Molecular Genetics,
University of the Punjab, Quaid-e-Campus,
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EDUCATION

Ph.D. Microbiology and Molecular Genetics (2012) University of the Punjab, Lahore, Pakistan

Thesis title: “Chromium reduction potential of indigenous chromium reducing bacteria” under supervision of Prof. Dr. Shahida Hasnain.

M.Sc. Botany specialization in Microbiology (2003) University of the Punjab, Lahore, Pakistan (4th Position)

Thesis title: “Isolation of *Enterobacter* & *Serratia* from different biofilms: Effect of mono & mixed culturing on plant growth promotion & soil aggregation” under supervision of Prof. Dr. Shahida Hasnain.

B.Sc. in Biology (Botany, Zoology, Chemistry-2000) University of the Punjab, Lahore, Pakistan

AWARDS & HONORS

- 1) Fourth Position in M.Sc. Botany (Punjab).
- 2) Won **best poster award** entitled “Isolation and characterization of Cr(VI) resistant bacteria from tannery effluent” by Aroona Ejaz, Asma Kalsoom and **Rida Batool** in **2nd International Conference on Plant Sciences (ICPS-2018)** organized by Department of Botany, Government College University, Lahore from December 05-07, 2018.
- 3) Won **best poster award** entitled “Analysis of phytochemicals, antibacterial and antioxidant activities in some medicinal plants” by Rimsha Dilshad and **Rida Batool** in **A Conference on Microbiology & Molecular Genetics (MMG 2018)** organized by Department of Microbiology and Molecular Geanetics, University of the Punjab, Lahore and Superior University Lahore from February 07-09, 2018.
- 4) Won **best poster award** entitled “*In-vivo* study for the evaluation of toxicological and antibacterial effect of *Rosa damascena* and *Nymphaea alba*” by Asma Kalsoom and **Rida Batool** in **1st International**

Conference on Emerging Trends in Earth and Environmental Sciences organized by College of Earth and Environmental Sciences, University of the Punjab, Lahore from March 09-10, 2017.

5) Won **2nd prize for the poster** entitled “Effect of Zinc solubilizing bacteria on growth of *Zea mays* and *Penicum miliaceum* plants” by Naima Khan, **Rida Batool** and Nazia Jamil in **10th International Biennial Conference of Pakistan Society of Microbiology (PSM10): Exploring Microbes for Future Endeavors** at University of the Punjab, Lahore-Pakistan from March 25-28, 2015.

6) Won **best poster award** entitled “Use of bacterial columns to remove the hexavalent chromium” by Aniq Naeem, **Rida Batool** and Nazia Jamil in **3rd International Symposium on Biomedical Materials: Advances and Challenges** organized by Interdisciplinary Research Center in Biomedical Materials (IRCBM) COMSATS Institute of Information Technology at Pearl Continental Catering, Lahore from December 18-19, 2012.

7) **Fellowship under IRSIP** funded by HEC to work for six months with Dr. Kim Yrjälä, Adjunct Professor, Department of Biological and Environmental Sciences Faculty of Biosciences, **University of Helsinki, Finland, May 2010- October, 2010.**

8) Fellowship for Collegium Ramazzini Satellite Workshop on **Occupational and Environmental Health in the Asia /Pacific Region** organized by Chulabhorn Research Institute, Bangkok, Thailand, from November 30 - December 1, 2007.

9) **Performance Evaluation Award** from **University of the Punjab** 2008, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017.

10) **Incentive Award for the Publication** from University of the Punjab 2012, 2013, 2014, 2015, 2017.

11) **HEC Approved PhD supervisor** for research in Biological Sciences

PUBLICATIONS

1) Mushtaq, J and **Batool, R** 2019. Cr(VI) resistant *Bacillus* and *Acinetobacter* isolated from soil of Naran valley. *Soil and Environment* 38(1):57-65. (HEC recognized Journal)

2) Javaid, N., **Batool, R.** and Jamil, N. 2019. Blend of Polyhydroxyalkanoates synthesized by Lipase positive bacteria from plant oils. *Journal of Renewable Materials*, 7(5): 463-475 (**I.F: 1.12**).

3) Mustafa, S., Kabir, S., Shabbir, U. and **Batool, R.** 2019. Plant growth promoting rhizobacteria in sustainable agriculture: from theoretical to pragmatic approach. *Symbiosis* 78(2), 115-123. doi.org/10.1007/s13199-019-00602-w (**I.F: 1.713**).

4) **Batool, R.,** Kalsoom, A., Akbar, I., Arshad, N. and Jamil N. 2018. Antilisterial effect of *Rosa damascena* and *Nymphaea alba* in *Mus musculus*. *BioMed Research International*, vol. 2018, Article ID 4543723, 1-9 doi:10.1155/2018/4543723 (**I.F: 2.476**).

5) Dilshad, R., **Batool, R.** and Jamil N. 2018. Phytochemical screening and antibacterial potential of *Artemisia absinthium L.*, *Swertia chirayita* and *Sphaeranthus indicus*. *Pakistan Journal of Pharmaceutical Sciences*, 31(2): 499-507 (**I.F: 0.682**).

6) N. Khan, **R. Batool** and N. Jamil. 2017. Organic anions production by *Bacillus* sp. to enhance maize and millet growth. *The Journal of Animal & Plant Sciences*.27 (6) 2035-2044 (**I.F: 0.407**).

7) **Batool, R.,** Ayub, S. and Akbar, I, 2017. Isolation of biosurfactant producing bacteria from petroleum contaminated sites and their characterization. *Soil and Environment*. 36 (1): 35-44 (HEC recognized Journal, Y Category).

8) **Batool, R.,** Tabassum T. and Ali, M. 2017. Evaluation of Cr (VI) remediation potential of *Eichornia* sp. in conjunction with chromium resistant bacterial strains. *Tropical Journal of Pharmaceutical Research*. 16 (5): 1005-1011 (**I.F: 0.444**).

- 9) Rehbar, S. and **Batool, R.**, 2017. Protease production by *Brevundimonas* sp. and *Trabulsiella guamensis* isolated from contaminated soil. *Rendiconti Lincei*. 28(3), 529-534. DOI 10.1007/s12210-017-0627-x (**I.F: 0.986**).
- 10) Akram S. **Batool, R.** and Kalsoom, A. 2017. Bioremediation of hexavalent chromium by free and immobilized biomass of chlorella and bacteria. *Pakistan Journal of Science*. 69(3) 291-297. (HEC recognized Journal, **X** Category).
- 11) **Batool, R.** Marghoob, U and Kalsoom, A. 2017. Estimation of exopolysaccharides (EPS) producing ability of isolated chromium resistant bacterial strains from tannery effluent. *Journal of Basic & Applied Sciences*, 13: 589-596 (HEC Pakistan recognized; **Y** category).
- 12) Abdirahman A. and **Batool, R.** 2016. Evaluation of bioactivity and preliminary phytochemical investigation of herbal plants against ampicillin resistant bacteria. *Journal of Basic & Applied Sciences*, 12: 109-117. DOI 10.6000/1927-5129.2016.12.17 (HEC Pakistan recognized; **Y** category).
- 13) **Batool, R.**, Yrjälä, K. and Hasnain, S. 2015. Alleviation of phyto-toxic effects of chromium by inoculation of chromium (VI) reducing *Pseudomonas aeruginosa* Rb-1 and *Ochrobacterum intermedium* Rb-2. *International Journal of Agriculture and Biology*. 17(1): 21-30 (**I.F: 0.902**).
- 14) **Batool, R.**, Yrjälä, K. and Hasnain, S. 2015. Study on cellular changes and potential endotrophy of wheat roots due to colonization of Chromium reducing bacteria. *International Journal of Environmental Science and Technology*, 12(10): 3263-3272. DOI 10.1007/s13762-015-0757-6 (**I.F: 2.190**).
- 15) **Batool, R.**, Yrjälä, K., Shaukat, K., Jamil, N. and Hasnain, S. 2015. Production of EPS under Cr(VI) challenge in two indigenous bacteria isolated from a tannery effluent. *Journal of Basic Microbiology*, 55(9):1064-1074. DOI: 10.1002/jobm.201400885 (**I.F: 1.822**).
- 16) **Batool, R.**, Komal Q. and Naeem, A. 2014. Comparative study of Cr (VI) removal by *Exiguobacterium* sp. in free and immobilized forms. *Bioremediation Journal* 18 (4): 317–327. (**I.F: 0.714**)
- 17) **Batool, R.**, and Hasnain, S. 2014. Cr (VI) removal by indigenous bacteria in conjunction with different biowaste materials: an ecofriendly approach. *Journal of the Chilean Chemical Society*, 59 (3), 2582-2587 (**I.F: 0.469**).
- 18) **Batool, R.**, Yrjälä, K. and Hasnain, S. 2014. Impact of environmental stress on biochemical parameters of bacteria reducing chromium. *Brazilian Journal of Microbiology* 45 (2), 573-583. (**I.F: 0.592**)
- 19) Naeem, A., **Batool, R.**, and Jamil, N. 2013. Cr (VI) reduction by *Cellulosimicrobium* sp. isolated from tannery effluent. *Turkish journal of Biology* 37 (3): 315-322 (**I.F: 1.216**).
- 20) **Batool, R.**, Yrjälä, K. and Hasnain, S. 2012. Hexavalent chromium reduction by bacteria from tannery effluent. *Journal of Microbiology and Biotechnology*, 22 (4), 547–554 (**I.F: 1.32**).
- 21) **Batool, R.** and Hasnain, S. 2005. Growth Stimulatory Effects of *Enterobacter* and *Serratia* isolated from biofilms on plant growth and soil aggregation. *Biotechnology* 4(4): 347-353.
- 22) Javed, S., **Batool, R.**, Sabri, A. N., and Hasnain, S. 2004. Isolation of *Pseudomonas* sp. from different biofilms: effect of mono & mixed culturing on plant growth promotion & soil aggregation. *Science International* (Lahore) 16(3): 215-221 (HEC Pakistan recognized; **Z** category).

Book Edited

Soil Microenvironment for Bioremediation and Polymer Production 2020. Nazia Jamil, Prasun Kumar and **Rida Batool** (Eds.), **Wiley-Scrivener Publishing LLC**. ISBN: 978-1119592051.

Book Chapters

- 1) Iqra Akbar and **Rida Batool 2018**. Phytochemical screening, antioxidant and antibacterial potential of ethanolic extracts of *Cassia*, *Laccifer* and *Rosa-damascena*. In: Understanding microbial pathogens: current knowledge and educational ideas on antimicrobial research. Enrique Torres-Hergueta and A. Méndez-Vilas, Eds. Formatex Research Center. Pp. 241-248. ISBN: 978-84-947512-5-7.
- 2) Rabia Faryad Kahn and **Rida Batool 2020**. Role of Cr(VI) Resistant *Bacillus megaterium* in phytoremediation. Nazia Jamil, Prasun Kumar and Rida Batool (eds.) Soil Microenvironment for Bioremediation and Polymer Production, Pp 181–196, Scrivener Publishing LLC.

PAPERS PRESENTED

- 1) **3rd International conference on “Innovative Biological and Public Health Research (IBPHR-2019)”** organized by Department of Zoology, GC University Lahore from November 13-14, 2019 and presented research work entitled “Removal of toxic chromate by Cr(VI) resistant bacteria from tannery waste.”
- 2) **International symposium on “Sunflower and Forage Crops Production, Challenges and Opportunities”** organized by College of Agriculture, University of Sargodha, from 25-27 March, 2019 and presented research work entitled “Plant Growth promotion potential of exopolysaccharides producing bacteria from Azad Kashmir”
- 3) **38th All Pakistan Sciences Conference on “Energy Crisis and their Solution in Pakistan”** organized by Pakistan association for the Advancement of Science in collaboration with College of Earth and Environmental Sciences, University of the Punjab, Lahore from 10-11 December, 2018 and presented research work entitled “Isolation and characterization of lipase producing bacteria from tannery effluent”
- 4) **2nd International Conference on Plant Sciences (ICPS-2018)** organized by Department of Botany, Government College University, Lahore from December 05-07, 2018 and presented research work entitled “Isolation and characterization of Cr(VI) resistant bacteria from tannery effluent”
- 5) **A Conference on Microbiology & Molecular Genetics (MMG 2018)** organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore and Superior University Lahore from February 07-09, 2018 and presented research work entitled “Analysis of phytochemicals, antibacterial and antioxidant activities in some medicinal plants”
- 6) **International Symposium on Diagnostics for Life Sciences** organized by Prof. Dr. Anjum Nasim Sabri and Dr. Shahzadi Mahpara in collaboration with Centre for Solid State Physics, University of the Punjab, Lahore from December 10-14, 2017 (ICSSP'17) and presented research work entitled “A study of utilization of rice husk as biosorbant material for Cr (VI) removal”.
- 7) **1st International Conference on Emerging Trends in Earth and Environmental Sciences** organized by College of Earth and Environmental Sciences, University of the Punjab, Lahore from March 09-10, 2017 and presented research work entitled “*In vitro* study for the estimation of antibacterial and antioxidant activity of *Nymphaea alba*”.
- 8) **DICE Energy & Water 2016** at University of Engineering & Technology Lahore, Pakistan from 19-20th December 2016 and presented research work entitled “Bioremediation of hexavalent chromium from environment”.

9) **5th International Symposium on Biomedical Materials: Clinical Requirements and Regulatory Affairs** at Pearl Continental, Lahore organized by Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS Institute of Information Technology, Lahore, from December 14-16th, 2016 and presented research work entitled “*In-vivo* toxicological and antibacterial evaluation of *Rosa damascena* and *Nymphaea alba*”.

10) **Annual Scientific Conference 2016** at Mohtarma Benazir Bhutto Shaheed University of Health Sciences, Azad Jammu Kashmir in collaboration with University of Health Sciences, Lahore, Pakistan, from May 06-08, 2016 and presented research work.

11) **Tenth International Biennial Conference of Pakistan Society of Microbiology (PSM10): Exploring Microbes for Future Endeavors** at University of the Punjab, Lahore-Pakistan from March 25-28, 2015 and presented research work and also chaired the session.

12) **International Conference on Chemical, Food and Environment Engineering (ICCFEE, 15) at Dubai (UAE) from Jan. 11-12, 2015** and gave poster presentation entitled “Colonization by chromium reducing bacteria led to cellular changes in roots of wheat”.

13) One day Symposium on “**Emerging Issues of Multidrug Resistance: A Threat to the Globe**” Organized by Department of Microbiology and Molecular Genetics, at Al Raazi Hall, Centre for undergraduate studies, University of the Punjab Lahore-Pakistan, October 2, 2014 and gave poster presentation.

14) **International Conference on Poverty and Sustainable Development (ICPSD'2014) at Colombo, Sri Lanka** from 17th -18th June, 2014 and gave poster presentation entitled “Rice husk in combination of bacteria: an effective combination for the removal of Cr (VI)”.

15) **1st International Seminar on Soil Health Reclamation Approaches** organized by College of Earth & Environmental Sciences (CEES), at Al Raazi Hall, Centre for Undergraduate Studies, University of the Punjab Lahore-Pakistan, June 11, 2014 and gave poster presentation.

16) Two day conference on “**Biophysicochemical Basis for Technopeneurship**” organized by Department of Microbiology and Molecular Genetics, at Al Raazi Hall, Centre for undergraduate studies, University of the Punjab Lahore-Pakistan, April 2-3, 2013 and gave poster presentation entitled “Rice husk as an efficient biowaste ingredient for the removal of Cr(VI)”.

17) **2nd International Conference on Bioscience, Biochemistry and Pharmaceutical Sciences (ICBBPS'2013) at Dubai, UAE** from 17-18 March, 2013 and gave poster presentation entitled “Remediation of Cr (VI) by chromium reducing bacteria in blend with different biowaste ingredients”.

18) **Ninth International Biennial conference of Pakistan Society of Microbiology: Vector borne viral diseases and surveillance and control** at University of Karachi from January 28-31, 2013 and gave poster presentation.

19) **3rd International Symposium on Biomedical Materials: Advances and Challenges** organized by Interdisciplinary Research Center in Biomedical Materials (IRCBM) COMSATS Institute of Information Technology at Pearl Continental Catering, Lahore from December 18-19, 2012 and presented poster entitled “Use of bacterial columns to remove the hexavalent chromium” and won best poster award.

20) **Bio Micro World 2011, at Torremollinos, Malaga, Spain, IV International Conference on Environmental, Industrial and Applied Microbiology**, from September 14-16, 2011 and gave oral presentation entitled “Hexavalent chromium reduction by bacteria from tannery effluent”.

21) EMBL Conference on **Chemical Biology 2008 at Heidelberg, Germany**, organized by **European Molecular Biology Laboratory**, 8-11 October, 2008 and presented poster entitled “Cr (VI) reduction by *Brevibacterium* sp. and *Ochrobactrum intermedium*”

22) **The Sixth Princess Chulabhorn International Science Congress** on “The Interface of Chemistry and Biology in the “Omics” Era: Environment & Health and Drug Discovery” at **Chulabhorn Research Institute, Bangkok, Thailand**, from November 25-29, 2007 and gave poster presentation entitled “Conversion of hexavalent Chromium to trivalent Chromium by indigenous bacteria.”

23) Ist Symposium on “**Genomics, Proteomics, Metabolomics: Recent Trends in Biotechnology**” organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, from October 22-23, 2007 and gave oral presentation entitled “Conversion of hexavalent Chromium to trivalent Chromium by indigenous bacteria.”

TEACHING EXPERIENCE IN UNIVERSITY OF THE PUNJAB

1). 6th Dec, 2012 as Assistant Professor in Microbiology and Molecular Genetics Department, University of the Punjab, Lahore.

2). April 2006 to 5th Dec, 2012 worked as a Lecturer in Microbiology and Molecular Genetics Department, University of the Punjab, Lahore.

3). 7th May 2003 to 16th April 2006, worked as a Research Officer /Lecturer in Microbiology and Molecular Genetics Department, University of the Punjab, Lahore.

<i>Research Projects awarded as Principal Investigator</i>	<i>PU Funded</i> 12		<i>HEC Funded</i> 01
<i>Research Publications</i>	<i>Published</i> 22		<i>In progress</i> 04
<i>Research Students Guided</i>	<i>B.S.</i> 11	<i>M.Sc.</i> 09	<i>M.S/M.Phil.</i> 07
<i>Conferences and Workshops Attended</i>	<i>More than 90 National and International</i>		