

Raja Tahir Mahmood

Lecturer Biotechnology

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Qualifications

Passing Year	Degree	Major Subjects	Board/University
2011- conti...	Ph.D	Biochemistry	PMAS AAUR
2009-11	M.Phil	Biochemistry	PMAS Arid Agriculture University Rawalpindi, Pakistan.
2007-09	M.Sc	Biochemistry	PMAS AAUR, Pakistan.
2004-06	B.Sc	Chemistry, Zoology & Botany	University of Punjab Lahore.
2002-04	F.Sc	Pre-Medical	BISE Mirpur, AJK.
2000-02	Matric	Science	BISE Mirpur, AJK.

Professional Experience

Research Experience

- Work as Doctoral student researcher under IRSIP program of HEC Pakistan in David Wu's research laboratory, Department of Chemical Engineering, Hajim School of Engineering and Applied Sciences, University of Rochester, NY, USA From April to September 2015.
- Working as Ph.D **Research Scholar** in **Industrial Environmental Biotechnology Laboratory**, Department of Biochemistry PMAS-Arid Agriculture University Rawalpindi since October 2011-to April 2015.

Teaching Experience

- ✚ Lecturer Biotechnology in the Department of Biotechnology, Mirpur University of Science and Technology (MUST), Mirpur AJK from February, 2015 to date.
- ✚ Lecturer (Visiting) in the Department of Biochemistry PMAS- Arid Agriculture University Rawalpindi from 2009 to 2014.

Laboratory Experience

- ❖ Worked as **Laboratory Technician** in **Federal Govt. Services Hospital (FGSH)** under National Internship Programme (NIP) from Feb. 2009 to Feb. 2010.

RESEARCH PUBLICATIONS

Total Publications: 18

Published

1. Saqib Hussain Hadri, Muhammad Javaid Asad, Muhammad Gulfraz, Muhammad Asghar, Nasir Mahmood Minhas, **Raja Tahir Mahmood**, Shehnaz Zakia, and Nasir Mahmood. Solid State Fermentation for the production of Laccase by *Neurospora sitophila* using agro-wastes and its partial purification. *International Journal of Biochemistry and Biotechnology*. 2015; 4 (5): 564-573.
2. **Raja Tahir Mahmood**, Muhammad Javaid Asad, Muhammad Asgher, Muhammad Gulfraz, Tariq Mukhtar and Muhammad Akram. Study of disperse dyes biodegradation and lignolytic enzymes production potential of indigenous *Coniophora puteana* IBL-01, a brown rot fungi. *Advances in Environmental Biology*. 2015; 9(11):139-150. (IF=0.15)
3. Nasib Zaman, M. Javaid Asad, Abida Raza, Ghazala Kaukab Raja, Shamim Akter, Majid Mehmood and **Raja Tahir Mahmood**. Detection of HCV RNA and NS5A Protein in Peripheral Blood Mononuclear Cells After Sustained Virological Response May Cause Viral Relapse. *Pakistan Journal of Zoology*. 2015. 47(4):981-987.
4. Nasib Zaman, M. Javaid Asad, Abida Raza, Ghazala Kaukab Raja, Shamim Akter, Majid Mehmood and **Raja Tahir Mahmood**. Presence of HCV RNA in Peripheral Blood Mononuclear Cells may Predict the Patients' Response to Interferon and Ribavirin Therapy. *Annals of Saudi Medicine*. 2014. 34(5):401-6. [doi: 10.5144/0256-4947.2014.401](https://doi.org/10.5144/0256-4947.2014.401).
5. Faiza Sarwar, Muhammad Shoaib, Muhammad Akram, Shumaila Naz, **Raja Tahir Mahmood**, M. Javaid Asad. Isolation and Antibiotic Resistance Patteren of UTIS Bacteria in Pakistani Pregnant Women. *Asian Journal of Pharmaceutical Science & Technology*. 2014: 4(4); 190-194.
6. Amna Kausar, Muhammad Akram, Muhammad Shoaib, **Raja Tahir Mahmood**, M. Nazeer Abbasi, Muhammad Adnan, Hafsa Aziz and M. Javaid Asad. Isolation and Identification of UTI Causing Agents and Frequency of ESBL (Extended Spectrum Beta Lactamase) in Pakistan. *Amer. J. Phytomed. Clin. Theur*. 2014: 2(8); 963-975. (I.F= 0.569)
7. Gulfraz M, Ahmed D, Ahmed MS, Qureshi R, **Mahmood R. T**, Jabeen N and Abbasi K.S. Effect of leaf extracts of *Taraxacum officinale* on CCl4 induced Hepatotoxicity in rats, in vivo study. 2014. *Pak. J Prahma. Sci.*, 27(4): 825-829. (I.F= 0.947)
8. Khan A. H, Minhas N M, Asad M J, Iqbal A, Ilyas M and Mahmood R T. Estimation of Protein, Carbohydrate, Starch and Oil Contents of Indigenous Maize (*Zea mays* L.) Germplasm. 2014. *Euro. Acad. Res.*, 2(4): 5230-5240.
9. Ejaz S, Asad MJ, Raja AM, Amin MN, Shahzad H, Zaffar M, Shahzad W and Mahmood RT. Comparative study of serum cholesterol and triglycerides levels with cardiovascular diseases. *Amer. J. Pharma. Health Res*. 2014: 2(6); 128-134. (I.F= 0.678)
10. Kamran M, Mahmood RT, Khan MA, Mehmood A, Nisar L and Asad MJ. Prevalence of Transfusion Transmitted Infections among Blood Donors; a Prospective Study. *Amer. J. Phytomed. Clin. Theur*. 2014. 2(4); 540-543. (Impact Factor= 0.569)

11. Mehboob N, Asad MJ, Asgher M, Gulfraz M, Mukhtar T and **Mahmood RT**. Exploring thermophilic cellulolytic enzymes production potential of *Aspergillus fumigatus* by the solid state fermentation of wheat straw. Appl Biochem Biotech. 2014. Doi: 10.1007/s12010-014-0796-3. **(Impact factor= 1.893)**
12. Amin N, **Mahmood RT**, Asad MJ, Zafar M, and Raja AM. Evaluating urea and creatinine levels in chronic renal failure pre and post dialysis: a prospective study. JCVd 2014;2:2 in press.
13. Ahmed D, Gulfraz M, Qureshi R, Ahmed MS and **Mahmood RT**. Cytoprotective potential of methanolic leaves extract of *Taraxacum officinale* on CCl₄ induced Rats. Pensee J. 2013. 75(11): 220-227. **(Impact Factor= 0.07)**
14. Shahzad H, Asad MJ, Masood T, Amin MN, Raja AM, Ijaz S and **Mahmood RT**. Distribution of ABO blood groups and Rh blood Factor in chronic myeloid leukemia patients. J Pub Health Bio Sci. 2013; 2(2):197-200.
15. **Mahmood RT**, Asad MJ, Mehboob N, Mushtaq M, Gulfraz M, Hadri SH, Asgher M and Minhas NM. Production, Purification and Characterization of Exoglucanase by *Aspergillus fumigatus*. Appl Biochem Biotech. 2013 170:4, 895-908. doi: [10.1007/s12010-013-0227-x](https://doi.org/10.1007/s12010-013-0227-x) **(Impact Factor= 1.893)**
16. Batool S, Asad MJ, Naqvi SMS, **Mahmood RT**, Guffar A, Gulfraz M and Hardi SH. Production and partial purification of pectin lyase by *Aspergillus niger* grown on orange peels. Afri. J. Microbiol Res., 2013; 7(13): 1144-1149. **(Impact Factor= 0.53)**
17. Umair M, **Mahmood RT**, Inam M, Waqas A, Wazir I. Sero-prevalence of Hepatitis B, Hepatitis C, Human Immunodeficiency Virus, Syphilis and Malaria in Blood Donors of Mirpur, Azad Jammu Kashmir, Pakistan. J Pub Health Bio Sci. 2012;1(4):110-114.
18. Sami A, **Mahmood RT**, Shah SH, Iqbal MU. Nanotechnology in human health care system:A review. J Pub Health Bio Sci. 2012;1(4):121-126.

Trainings Workshops

- Hands-on training on **Fourier Transform Infrared Spectroscopy** on 1st July, 2013 at Interdisciplinary Research Centre in Biomedical Materials, CIIT Lahore.
- Second National Training Course on “**Bacterial Identification and Metagenomics**” from 4-8 March, 2013 at NIBGE Faisalabad, Pakistan.
- Five days training workshop on “**Data Analysis and Methodologies**” from 18-22 December, 2012, at Biostatistical Consulting Centre, UVAS, Lahore Pakistan.
- Two days training workshop on **Biofuel Production from Agriculture Wastes** from **13 to 14 April**, 2010 in Department of Biochemistry, PMAS AAUR Pakistan.

Research Title

- **Production, Purification and Characterization of Exoglucanase by *Aspergillus fumigatus*.**
- **Biodegradation of textile dyes by indigenously isolated brown rot fungi and study of their enzyme system**

Research Area

■ Industrial and Environmental Biotechnology: Treatment of industrial effluent and wastewater by fungi

■ Enzymology: Production and Characterization of important industrial enzymes

Presentations in National/International Conferences					
Oral Presentations					
S.N	Author(s)	Title of Paper	Vol. of Proceeding & Page No.	Date of Conference	Title of Conference & Venue
1.	Raja Tahir Mahmood and Maqsood Ahmed	Study of antidebiatic potential of hydroethanolic extracts of <i>Nerium oleander</i> flowers		Nov 3-4, 2015	5 th Summit, Innovation to invention, Haripur University
2.	Nayab Munir, M. Javaid Asad, Saqib Hussain Hadri, Nasir Mehmood Minhas, Anum Hanif, Muhammad Gulfraz and Raja Tahir Mahmood	Production, Purification and Characterization of Polygalacturonase by <i>Bacillus subtilus</i>	Page# 73	Dec. 4-7, 2014	12th International Conference of Pakistan Society of Biochemistry and Molecular Biology (PSBMB-2014) at Islamia University Bahawalpur Pakistan
3.	Muhammad Azhar Rasheed Khan, Muhammad Javaid Asad, Abida Raza Rao, Ghazala Kaukab Raja, Farah Ahmed, and Raja Tahir Mahmood	Optimization of Hepascore in Local Population of Rawalpindi and Islamabad, Pakistan	Page# 55	Dec. 4-7, 2014	12th International Conference of (PSBMB-2014) at Islamia University Bahawalpur Pakistan

4.	Hafsah Zaheer, M. Javaid Asad, Mudassar Zafar, Muhammd Shoaib, Saqib Hussain Hadri and Raja Tahir Mahmood	Site Directed Mutagenesis to study the expression of β -glucosidase gene from <i>Thermotoga maritima</i>	Page# 76	Dec. 4-7, 2014	12th International Conference of (PSBMB-2014) at Islamia University Bahawalpur Pakistan
5.	Rizwan Ahmed Kiani, M. Javaid Asad, Nabila Kanwal, M. Nazeer Abbasi, Muhammad Akram and Raja Tahir Mahmood	Prevalence of HIV, HCV and HBV in Transfusion Dependent β -Thalassemia Patients of Islamabad and Rawalpindi	Page# 56	Dec. 4-7, 2014	12th International Conference of (PSBMB-2014) at Islamia University Bahawalpur Pakistan
6.	Muhammad akram, M. Javaid Asad, Muhammad Gulfraz and Raja Tahir Mahmood	Biodegradation of disperse dyes by indigenously isolated <i>Coniophora puteana</i> IBL-01 and study of extracellular enzymes	Page# 62	Nov. 26-28, 2014	2 nd International Conference on Biotechnology for Sustainable Development, Institute of Industrial Biotechnology, GC University Lahore, Pakistan
7.	Muhammad Nazeer Abbasi, Mudasar Zafar, M. Javaid Asad, Saqib Hussain Hadri and Raja Tahir Mahmood	Cloning and Expression of β -Glucosidase Gene from <i>Thermotoga maritima</i>	Page# 48	Nov. 26-28, 2014	2 nd ICBSD-2014 Institute of Industrial Biotechnology, GC University Lahore, Pakistan
8.	Muhammad Shoaib Siddiqui, M. Javaid Asad, Abida Raza, Nasib Zaman and Raja Tahir Mahmood	Molecular Characterization of <i>Pseudomonas aeruginosa</i> isolated from nosocomial infection	Page# 49	Nov. 26-28, 2014	2 nd ICBSD-2014 Institute of Industrial Biotechnology, GC University Lahore, Pakistan

9.	Raja Tahir Mahmood , M. Javaid Asad, Tariq Mukhtar and Nazia Mehboob	Thermophillic Cellulases from Indigenously Isolated fungi for industrialization		Feb 24-26, 2014	International Conference of Biochemical and Chemical Sciences, Department of Chemistry and Biochemistry, University of Agriculture Faisalabad
10.	Nazia Mehboob, M.Javaid Asad, M.Gulfraz, M.Asgher and Raja Tahir M.	Comparison of Cellulases production potential of thermophillic <i>A.fumigatus</i> and <i>A.sydownii</i>	Pg# 73	Nov. 25-28, 2013	11 th PSBMB Conference at Punjab Univ. Lahore
11.	Asia Sajid, M. Javaid Asad, Raja Tahir Mahmood , M. Gulfraz Muhammad Asghar, Saqib Hussain and Mudassar Zafar	Assessment Of B-Amylase Production Potential of <i>Aspergillus Fumigatus</i> on Agricultural Waste	Pg# 21,22	Aug, 20-22, 2013	International Conference on Applications of Molecular Biology in Medicine and Agriculture, QAU Islamabad
12.	Raja Tahir Mahmood , M.Javaid Asad, N. Mehboob, M.Asgher, M.Gulfraz and S.H.Hadri	Solid State Fermentation of lignocellulosic wastes for the production of cellulases by <i>Henicola grisea</i>	Pg#12	April 18-20, 2012	3 days international bioenergy conference PMAS-AAUR
13.	Saqib Hussain Hadri*, M. Javaid Asad, Raja Tahir Mahmood , and NaziaMehboob	Enhanced production of Laccase by <i>Neurospora sitophila</i> and its possible role in biofuel production	Pg. # 13	April 18-20, 2012	3 days international bioenergy conference PMAS-AAUR
14.	Maria Mushtaq, M. JavaidAsad, NaziaMehboob, M. Asghar, M. Gulfraz and Raja Tahir M	Production and Purification of Endoglucanase by <i>Aspergillus sydowii</i> using Corn Stover	Pg # 14	April 18-20, 2012	3 days international bioenergy conference PMAS-AAUR

15.	M.Javaid Asad, Nazia Mehboob, M. Gulfraz, Raja Tahir Mahmood and M.Asgher	Production, purification and characterization of cellulases from <i>Aspergillus hemicola</i> in solid state fermentation	Pg # 15	March 6-8, 2012	32 ND Pakistan Congress of Zoology (International) GC University Lahore
16.	Raja Tahir Mahmood* , M. Javaid Asad, M. Gulfraz and Saqib Hussain Hadri	Bioprocessing of Corn Stover for the Production of Beta-glucosidase by <i>Aspergillus fumigatus</i>	Pg # 16	March 6-8, 2012	32 ND Pakistan Congress of Zoology (International) GC University Lahore
17.	Raja Tahir Mahmood* , M. Javaid Asad, M. Gulfraz and Saqib Hussain Hadri	Purification and characterization of endoglucanase by <i>Aspergillus fumigatus</i>	Pg # 72	January 10-12, 2012	National Science Conference 'Roadmap of Cutting Edge Technologies PMAS-AAUR
18.	M. Javaid Asad, M. Gulfraz, Raja Tahir Mahmood , Saqib Hussain Hadri	Optimization of cultural conditions for the production and purification of exoglucanase	Pg#125	November. 21-23, 2011	10 th international 22 nd national Chemistry Conference, University of Agriculture Faisalabad

Poster Presentations

S.N	Author(s)	Title of Paper	Vol. of Proceeding & Page No.	Date of Conference	Title of Conference & Venue
1	Naila Sajjad, M. Javaid Asad, M. Asgher and Raja Tahir Mahmood	Partial Purification and Characterization of Thermophilic Endoglucanase from <i>Aspergillus fumigatus</i>		Feb 24-26, 2014	International Conference of Biochemical and Chemical Sciences, Department of Chemistry and Biochemistry, University of Agriculture Faisalabad
2	Shabbir Hussain, M. Javaid Asad, Raja Tahir Mahmood and	Production and partial purification of Xylanase by		Feb 24-26, 2014	International Conference of Biochemical and

	Mudassar Zafar	<i>Aspergillus sydowii</i> through Solid State Fermentation			Chemical Sciences, Department of Chemistry and Biochemistry, University of Agriculture Faisalabad
3	Saqib H H, M.Javaid Asaqd, M.Gulfraz, M.Zafar and Raja Tahir M	Solid state fermentation for the production of laccase by <i>Neurospora sitophila</i> using agricultural wastes and its partial purification	Pg# 181-182	Nov. 25-28, 2013	11 th PSBMB Conference at Punjab Univ. Lahore
4	Raja Tahir Mahmood , M. Javais Asad, N. Mehboob, Saqib H. Hadri, M. Asgher and M. Gulfraz	Solid State Fermentation of corn stover by <i>Aspergillus sydowii</i> for the production of indeginous exoglucanase	78-79	September, 1-3, 2012	12 th national and 3 rd international conference of botany Quaid e Azam University Islamabad
5	M. Javaid Asad, Saqib H. Hadri, Raja Tahir Mahmood and Nazia Mehboob	Enhanced production of laccase by <i>Neurospora sitophila</i>	286	November, 21-23, 2011	10 th international 22 nd national Chemistry Conference, University of Agriculture Faisalabab

Seminar Delivered

Topic	Place
<ul style="list-style-type: none"> ✚ Environmental toxicology: Carcinogens and Chemoprevention ✚ S-Layer proteins: A potential application in Nanobiotechnology 	PhD 2 nd Ph.D (1 st)
<ul style="list-style-type: none"> ✚ Probiotics and their Biotechnology 	M.Phil (2 nd)
<ul style="list-style-type: none"> ✚ Antioxidants and their Mechanism of Action ✚ Interferones and their Mechanism of Action 	M.Phil (1 st) M.Sc (3 rd)

National/ International Conferences

1. 5th National Summit on Innovation to Invention in Haripur University, KPK Pakistan from Nov 3-4, 2015
2. 12th International Conference of Pakistan Society of Biochemistry and Molecular Biology (PSBMB-2014) organized by Department of Biochemistry and Biotechnology, Department of Chemistry The Islamia University Bahawalpur, Pakistan from 4-7 Dec. 2014.
3. 2nd International Conference on **Biotechnology for Sustainable Development** (ICBSD-2014) organized by Institute of Industrial Biotechnology, GC University Lahore Pakistan from 26-28 Nov. 2014.
4. International Conference of Biochemical and Chemical Sciences (ICBCS-2014) under heading “ **Go Greener for Sustainable Economy**” organized by Department of Chemistry and Biochemistry, University of Agriculture Faisalabad from Feb. 24-26, 2014.
5. Conference on “**Recent Advances in Nanotechnology**” Held on 6th January 2014 at PINSAT, Preston University, Islamabad
6. **11th BIENNIAL Conference on Molecular Bioscience-Challenges and Opportunities** organized by Pakistan Society for Biochemistry and Molecular Biology from 25-28 Nov. 2013 at The University of Punjab Lahore.
7. International Conference on **Applications of Molecular Biology in Medicine and Agriculture** from 20-22 Aug, 2013 in QAU, Islamabad.
8. **2nd Workshop on RT-PCR** from 4-7 September, 2012 in Department of Biochemistry PMAS-AAUR.
9. **12th National and 3rd International Conference of Botany** from Sept. 1st to 3rd, 2012 in Quaid-e-Azam University, Islamabad.
10. **3 Days International Bioenergy Conference** from 18-20 April, 2012 in PMAS AAUR.
11. **32nd Pakistan Congress of Zoology (international)**, from 6-8 March, 2012 in GC University, Lahore.
12. **National Science Conference “Roadmap of Cutting Edge Technologies”** by Pakistan Academy of Sciences from Jan. 10-12, 2012 at PMAS AAUR.
13. **10th international and 22nd national Chemistry and Biochemistry conference** from November 21-23, 2011 at University of Agriculture Faisalabad.
14. **1st workshop on Real Time PCR** from **8-11 june** 2010 in PMAS AAUR..
15. **International Bhurban Conference on Applied Science & Technology (IBCAST)** held at National Centre for Physics (NCP), Quid-e-Azam University Islamabad from **11th to 14th** of Jan 2010.

Symposium

1. **5th National symposium on Depression on 31st Aug. 2013 at PC Rawalpindi**

Major Course Studied

- ❖ Biochemistry
- ❖ Molecular biology
- ❖ Microbiology
- ❖ Pharmacology

- ❖ Human physiology
- ❖ Nutrition and dietetics
- ❖ Medical nutrition therapy
- ❖ Tissue culturing
- ❖ Project, Planning and Evaluation
- ❖ Bioinformatics
- ❖ Clinical endocrinology
- ❖ Cellular signaling mechanism
- ❖ Genetic engineering
- ❖ Advances in Biotechnology
- ❖ Biotechnology
- ❖ Enzymology
- ❖ Metabolism
- ❖ Environmental Biochemistry

Instruments Used/ Expertise

- ❖ Thermocycler
- ❖ Nanodrop Spectrophotometer
- ❖ Spectrophotometer
- ❖ Fermentor
- ❖ Biomass monitor
- ❖ Shaker/ incubator
- ❖ HPLC
- ❖ Autoclave
- ❖ Haemocytometer
- ❖ Centrifuge
- ❖ Microscope
- ❖ Microtome
- ❖ Laminar flow

Techniques Used

- ❖ Gene Cloning
- ❖ Protein Purification
- ❖ Blood analysis
- ❖ Protein estimation
- ❖ Chromatography
- ❖ Enzyme activity
- ❖ Cells/ Spore count
- ❖ Tissue slide preparation
- ❖ Fungal culturing
- ❖ Bacterial/Fungal isolation

Research Interest Areas

- ❖ Enzyme Biotechnology
- ❖ Fermentation Biotechnology
- ❖ Industrial Biotechnology
- ❖ Molecular Biology

Computer Proficiency

Tools	Skill Proficiency
Microsoft Office	High
Microsoft Power Point	High
Microsoft Excel	High
Internet	High
Diploma of Basic courses	2 month

Linguistic Abilities

Language	Expertise
English	<input checked="" type="checkbox"/> Speaking <input checked="" type="checkbox"/> Reading <input checked="" type="checkbox"/> Writing
Urdu	<input checked="" type="checkbox"/> Speaking <input checked="" type="checkbox"/> Reading <input checked="" type="checkbox"/> Writing
Punjabi	<input checked="" type="checkbox"/> Speaking

Hobbies

Sports (Cricket and Badminton etc.)
Hiking
Research

Other

Father's Name	Raja Khaliq Hussain Khan
Date of Birth	21-08-1987
Nationality	Pakistani
CNIC #	37405-8916905-1
Domicile	Federal

References

Prof. Dr. M. Gulfraz

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