

Curriculum Vitae

PERSONAL DETAILS

Name: Rashid Bhatti
Gender: Male
Date and place of birth: 29 June 1979 (Lahore)
Nationality: Pakistani
Specialization: Molecular Biology
Current Position: Assistant Professor since 26-10-2021
Centre of Excellence in Molecular Biology,
University of the Punjab, Lahore
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EDUCATION

Degree/Certificate	Year	Division	Subject	Institution
Ph.D.	2015	1st	Molecular Biology	CEMB, University of the Punjab, LHR.
M.Phil.	2002-2004	1st	Molecular Biology	CEMB, University of the Punjab, LHR.
M.Sc.	1998-2000	1st	Zoology	University of the Punjab, LHR.
B.Sc.	1996-1998	1st	Zoology, Botany, Chemistry	Govt. College, LHR.
F.Sc.	1994-1996	1st	Pre- Medical	Civil Lines College, LHR.
Matric	1992-1994	1st	Science	Govt. Muslim Model high school, LHR.

Ph.D. Thesis Title:

“Genome Wide Search for a New Deafness Locus”.

M.Phil. Thesis Title:

“Identification of Connexin26 (GJB2) Mutations in Pakistani Population”.

M.Sc. Thesis Title:

“Electrophoretically Separated Protein Fractions in the Sera of Pregnant Neli Ravi Buffalo”.

PROFESSIONAL EXPERIENCE

Research Experience

2021 to present (Asst. Professor)

2017- 2020 (Lecturer)

Department of Nutraceutical & Microbial Biotechnology,
CEMB, University of the Punjab, LHR, Pakistan.

Project: Screening of Pakistani Therapeutic Plants/Plant
Products Against Hepatocellular Carcinoma and Alzheimer’s
disease.

Role:

- Establish the Nutraceutical Lab in CEMB.
- Designing the research projects for M.Phil. students.
- Optimization of protocols for research use.
- Train the students in techniques used in their research work.
- Guiding students in screening of Pakistani plants/plant products against hepatocellular carcinoma and Alzheimer’s disease.
- Grant writing.
- Maintenance of chemicals and lab equipments.

2011- 2017 (Lecturer)

Department of Genetics, CEMB, University of the Punjab,
LHR, Pakistan.

Project: Identification and Characterization of Genes
Responsible for Hearing Impairment in Pakistani Population.

Role:

- Identification and collection of deaf families.
- Collection of clinical data from deaf families.

- DNA extraction, genotyping and analysis of genotypic data for exclusion of reported deafness loci.
- Primer designing (both for genotyping & sequencing) and PCR optimization for various genes.
- Identification of mutations by Sanger sequencing
- Lab reagents preparation
- Maintenance of chemicals and lab equipments
- Train and guide the students in research work
- Troubleshooting in research work
- Preparation of size standard for genotyping
- Maintenance of deaf families data (consent form, clinical and genotypic data).

2007- 2010

Research Officer:

Department of virology, CEMB, University of the Punjab, LHR, Pakistan.

Project: Prime Minister's Program for Prevention & Control of Hepatitis.

Role:

- Diagnosis of HBV, HCV and tuberculosis in patients by conventional and Real Time PCR.
- Identification of HBV and HCV genotypes by PCR.
- Record maintenance of HBV, HCV and T.B patients

2004- 2007

Research Officer:

Department of Genetics, CEMB, University of the Punjab, LHR, Pakistan.

Project: Identification and Characterization of Genes Responsible for Hearing Impairment in Pakistani Population.

Role:

1. Identification and collection of deaf families.
2. Collection of clinical data from deaf families.

3. DNA extraction, genotyping and analysis of genotypic data for exclusion of reported deafness loci.
4. Primer designing (both for genotyping & sequencing) and PCR optimization for various genes.
5. Identification of mutations by Sanger sequencing
6. Lab reagents preparation
7. Maintenance of chemicals and lab equipments
8. Train and guide the students in research work
9. Troubleshooting in research work

Teaching Experience

Courses Taught: “Advances in Forensic Sciences” (Ph.D. level).
CEMB, University of the Punjab, LHR, Pakistan.

“Biostatistics and Bioinformatics” (M.Phil. level)
CEMB, University of the Punjab, LHR, Pakistan.

Administrative Experience

- Act as an invigilator in entry test examination (Academic year 2022) for the admission in M.Phil/Ph.D. programme at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan (Notification: AO/8944, dated 11-10-2022).
- Worked as a member of abstract evaluation committee in “*International symposium on advances in molecular biology of plants and health sciences*” at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 21st -23rd November, 2017.
- Act as an *invigilator in entry test examination (Academic year 2017)* for the admission in M.Phil/Ph.D. programme at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan (Notification: AO/2451, dated 08-08-2017).
- Act as an *invigilator in entry test examination (Academic year 2016)* for the admission in M.Phil/Ph.D. programme at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan (Notification: AO/3369, dated 16-08-2016).
- Worked as a *member of instrument verification committee* at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan (Notification: AO/2237, dated 23-06-2015).

- Worked as a member of maintenance committee in ***“International symposium on advances in molecular biology of plants and health sciences”*** at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 29th -31st December, 2015.

COMPUTER SKILLS

- Windows
- MS Office 2007
- Macromedia Freehand
- Adobe Illustrator
- Internet Browsing
- GeneMapper® Software Version 4.0
- Cyrillic 2.1 (Pedigree Drawing Software)
- Primer 3
- Sequencher Software Version 5.1
- Finch TV (Chromatogram Viewer)
- EndNote X9
- Scapple (Mind Mapping Software)

SKILLS AND TECHNIQUES

- DNA Isolation
- Polymerase Chain Reaction [PCR]
- Gel Electrophoresis
- Genotyping
- DNA Sequencing (Sanger sequencing)
- Primer Designing
- Cell Culturing
- MTT Assay
- Real Time PCR
- Haemolytic Assay
- Wound healing Assay
- DNA Fragmentation Assay
- Network Pharmacology (In silico approach)
- Fibrotic mouse modeling
- Molecular Docking (MOE software)

HONOURS AND AWARDS

- HEC Indigenous Ph.D. Scholarship
- International Research Support Initiative Programme (IRSIP) Scholarship (HEC)
- Performance Evaluation Award 2017
- Performance Evaluation Award 2018

STUDENTS SUPERVISED

Twelve students have been supervised in field of Molecular Medicine and Human Genetics (See details below).

Academic Year 2022

- *Student Name:* Ms. Ayesha Bibi

Thesis Title: In vitro and In vivo assessment of medicinal plants against Hepatocellular Carcinoma and Alzheimer Disease Coupling with Network Pharmacology

Academic Year 2022

- *Student Name:* Mr. Hamza Afandi

Thesis Title: Pharmacological Evaluation of Plants Against Hepatocellular Carcinoma and Alzheimer's Disease by In vitro, In vivo and Network Pharmacology

Academic Year 2021

- *Student Name:* Ms. Zainab Akram

Thesis Title: Assessment of Synergistic Antibacterial Activity and Anticancer Effect of Five Indigenous Plants

Academic Year 2021

- *Student Name:* Ms. Khadija Abdul Majid

Thesis Title: Screening of four indigenous plants for their synergistic antibacterial activity and anti-cancerous effect.

Academic Year 2020

- *Student Name:* Ms. Israr Fatima

Thesis Title: Computational screening of potential phytochemicals against hypertension

Academic Year 2020

- *Student Name:* Ms. Shajia Jabeen

Thesis Title: In Vitro Determination of Anticancer Activity of Medicinal Plants Against HepG2 Liver Cancer Cell Line

Academic Year 2019

- *Student Name:* Ms. Hadia Shakeel

Thesis Title: Evaluation of Anti-cancer Potential of Medicinal Plants Against Hepatocellular Carcinoma (HCC).

Academic Year 2018

- *Student Name:* Mr. Husnain Qamar

Thesis Title: Antibacterial, Antifungal and Phytochemical Assessment of *Dracocephalum nuristanicum*.

Academic Year 2018

- *Student Name:* Ms. Rida Shabbir

Thesis Title: Antiviral Assessment of Pakistani Plants Against Hepatitis C Virus (HCV).

Academic Year 2018

- *Student Name:* Ms. Sehar Riaz

Thesis Title: In vitro Anti-viral Screening of Local Medicinal Plants of Pakistan Against Hepatitis C (HCV).

Academic Year 2016

- *Student Name:* Ms. Samra Kousar

Thesis Title: Identification of Genetic Determinants of Hearing Impaired Families from Central Punjab Region of Pakistan.

Academic Year 2015

- *Student Name:* Mr. Tariq Nadeem

Thesis Title: Screening of DFN4/PDS Locus through Linkage Analysis.

PUBLICATIONS

- Ahmed, U., Ashfaq, U.A., Qasim, M., Rahman, M., Khaliq, S., Tariq, M., **Bhatti, R.**, Masoud, M.S., 2022. The Fate of Toxicological Studies: From Animal Models to Stem Cell-based Methods. *Frontiers in Stem Cell and Regenerative Medicine Research: Volume 10*, 10, pp.103-122.
- Aamir, S., Mir, I., Shahid, M., Amin, I., Afzal, S., Rafique, S., **Bhatti, R.**, Nawaz, A., Butt, F., Munir, R. and Idrees, M., 2022. Insights into the Structure, Replication, and Pathogenesis of the Severe Acute Respiratory Syndrome Coronavirus 2. *Re: GEN Open*, 2(1), pp.85-92.

- Sultan, A., Khan, M.A., Ahmed, N., Hassan, M., **Bhatti, R.**, Naeem, H., Khan, M.I., Tahir, S., Afzal, S. and Shahid, A.A., 2022. Gene Multimerization in Expression Vector: A Potential Strategy for Enhanced Protein Expression in E. coli.
- **Bhatti, R.**, Shakeel, H., Malik, K., Qasim, M., Khan, M.A., Ahmed, N. and Jabeen, S., 2021. Inorganic Nanoparticles: Toxic Effects, Mechanisms of Cytotoxicity and Phytochemical Interactions. *Advanced Pharmaceutical Bulletin*, 12(4), pp.757-762.
- Tariq, M.H., **Bhatti, R.**, Ali, N.F., Ashfaq, U.A., Shahid, F., Almatroudi, A. and Khurshid, M., 2021. Rational design of chimeric Multi-epitope Based Vaccine (MEBV) against human T-cell lymphotropic virus type 1: An integrated vaccine informatics and molecular docking based approach. *PloS one*, 16(10), p.e0258443.
- Kausar, N., Haque, A., Masoud, M.S., Nahid, N., Ashfaq, U.A., Waryah, A.M., **Bhatti, R.** and Qasim, M., 2021. Disease-associated variants of Gap Junction Beta 2 protein (GJB2) in the deaf population of Southern Punjab of Pakistan. *PloS one*, 16(10), p.e0259083.
- Ashfaq, U.A., Saleem, S., Masoud, M.S., Ahmad, M., Nahid, N., **Bhatti, R.**, Almatroudi, A. and Khurshid, M., 2021. Rational design of multi epitope-based subunit vaccine by exploring MERS-COV proteome: Reverse vaccinology and molecular docking approach. *Plos one*, 16(2), p.e0245072.
- Bhinder, M.A., Sadia, H., Mahmood, N., Qasim, M., Hussain, Z., Rashid, M.M., Zahoor, M.Y., **Bhatti, R.**, Shehzad, W., Waryah, A.M. and Jahan, S., 2019. Consanguinity: A blessing or menace at population level?. *Annals of human genetics*, 83(4):214-219. DOI: 10.1111/ahg.12308.
- Malik, K., Razzaq, A., Ghufuran, H., Naseer, A.M., Tariq, Y., Abbas, Z., Basit, H.M., Nazir, A., Saeed, A., **Bhatti, R.**, Shahid, M., Fatima, A., Sadia, H., 2019. Urgency of novel anti-tuberculosis strategies: a prospective challenge. *International Journal of Biosciences*, 15(2):281-296. <http://dx.doi.org/10.12692/ijb/15.2.281-296>.
- Jaworek, T., **Bhatti, R.**, Latief, N., Khan, S., Riazuddin, S. and Ahmed, Z. (2012) 'USH1K, a novel locus for type I usher syndrome, maps to chromosome 10p11.21-q21.1', *Journal of human genetics.*, 57(10), pp. 633–7.
- Schultz, J., **Bhatti, R.**, Madeo, A., Turriff, A., Muskett, J., Zalewski, C., King, K., Ahmed, Z., Riazuddin, S., Ahmad, N., Hussain, Z., Qasim, M., Kahn, S., Meltzer, Liu, X., Munisamy, M., Ghosh, M., Rehm, H., Tsilou, E., Griffith, A., Zein, W., Brewer, C. and Friedman, T. (2011) 'Allelic hierarchy of CDH23 mutations causing non-syndromic deafness DFNB12 or usher syndrome USH1D in compound heterozygotes', *Journal of medical genetics.*, 48(11), pp. 767–75.

SEMINAR/CONFERENCES/WORKSHOP

- Attended the Two-day workshop on “Promoting Research Excellence in Academics across Pakistan” on 1st and 2nd February 2022.
- Act as an organizer in training on “FINDING YOUR PURPOSE” held on 23rd to 25th September 2022 at Center of Excellence in Molecular Biology (CEMB), University of The Punjab, Lahore, Pakistan.
- Act as an organizer in “4th International Symposium on Advances in Molecular Biology of Plants and Health Sciences” held on November 22-23,2021 at Center of Excellence in Molecular Biology (CEMB), University of The Punjab, Lahore, Pakistan.
- Attended the training on “HEC Digital Library Collections for Your Next Scholarly Research” on October 14, 2020.
- Attended the “3rd International Conference on Applied Zoology (ICAZ-2020)” on December 07-08, 2020.
- Attended the training on “5 Tips for Getting Published: Maximize Your Chances to Get Your Paper Accepted in Academic Journals!” on October 27, 2020.
- Attended the training on “How to Manage Your References Using RefWorks” on October 26, 2020.
- Attended the training on “ProQuest E-book Central Advanced Training” on September 16, 2020.
- Delivered the oral presentation “IN VITRO DETERMINATION OF ANTICANCER ACTIVITY OF MEDICINAL PLANTS AGAINST HEPG2 LIVER CANCER CELL LINE” at the 19th Shaukat Khanum Cancer Symposium held on November 6 - 8, 2020.
- Attended the training on “Strengthening Research Planning using Elsevier Tools-Scopus, ScienceDirect & Mendeley” on October 22, 2020.
- Attended the international conference on “Recent Innovations in Molecular Sciences” at University of The Punjab, Lahore, Pakistan on November 06-08, 2019.
- Attended the Web of Science Conference on “International Scholarly Publishing from Pakistan: Framework for Fast-Paced Progress” at CEMB University of the Punjab Lahore on March 11, 2019.
- Attended the “Scientific Symposium on Brain, Neurogenetics and Regenerative Medicine” at CEMB University of the Punjab Lahore on October 03, 2019.

- Abstract “Evaluation of anti-cancer potential of medicinal plants against hepatocellular carcinoma (HCC)” accepted for poster presentation in International Conference on “Recent Innovations in Molecular Sciences” at University of The Punjab, Lahore, Pakistan on November 06-08, 2019.
- Abstract “*Acacia nilotica*: a potent plant against microbial resistance” accepted for poster presentation in 1st International Conference on Natural Sciences at GCW Gullberg Lahore on 4-5 December 2018.
- Attended the one day symposium on “**Industrial Biotech & Biorefining**” held at Center for Applied Molecular Biology, University of the Punjab, Lahore, Pakistan on 25 January, 2018.
- Abstract “ *Acacia nilotica*: a potent plant against microbial resistance” accepted for poster presentation in 1st International Conference on Natural Sciences at GCW Gullberg Lahore on 4-5 December 2018.
- Abstract; Recent advances in phytochemical research to treat hepatitis C infection” accepted for poster presentation In Proceeding of 3rd International symposium on Advances in Molecular Biology of Plants and Health Sciences, in CEMB University of the Punjab Lahore on Dec 19-21, 2018.
- Attended the one day symposium on “**Industrial Biotech & Biorefining**” held at Center for Applied Molecular Biology, University of the Punjab, Lahore, Pakistan on 25 January, 2018.
- Attended the “**International symposium on advances in molecular biology of plants and health sciences**” at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 21st -23rd November, 2017.
- Attended the “**16th Shaukat Khanum Cancer Symposium**” held on November 10-12, 2017 at Pearl Continental Hotel Lahore, Pakistan.
- Attended the one day training workshop on “**Behavioral Based Biosafety Culture**” at National Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 23 August 2017.
- Attended the international seminar on “**Recent Trends and Techniques to Evaluate Aquatic Toxicity**” at GC University, Faisalabad, Pakistan on 21 December 2016.
- Attended the awareness seminar on “**Lungs and Bronchial Diseases**” at Center for Applied Molecular Biology (CAMB), University of the Punjab, Lahore, Pakistan on 17 November 2016.
- Attended the workshop entitled “**A Day with Biosafety**” at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 25 October 2016.

- Attended the national workshop on “*CRISPR/Cas9 Genome Editing Technology*” at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 02 June 2016.
- Attended the “*International symposium on advances in molecular biology of plants and health sciences*” at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 29th -31st December, 2015.
- Attended the “*International Symposium on Genetic Diseases*” at Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad, Pakistan on 30th -31st March, 2015.
- Attended the “*DNA Day & NAYS Emerging Ideas Conference*” at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan on 25th April 2013.
- Attended the “*International Symposium on Biotechnology Applications in New Emerging Fields*” at Allama Iqbal Medical College, Lahore, Pakistan on 21st -23rd December, 2010.
- Tariq, M., H., **Bhatti, R.**, and Irshad, S., (2017) HCV/HBV co-infection and its treatment in Pakistan. International Conference on Trends and Prospects in Molecular Biosciences, October 23-24, Institute of Biochemistry and Biotechnology University of the Punjab (Abstract).
- Qamar, H., Basit, K., and **Bhatti, R.**, (2017) Antimicrobial potential assessment of Pakistani Wild Plants. Symposium on Advances in Molecular Biology of Plants and Health Sciences, November 21-23, CEMB, University of the Punjab, Lahore, Pakistan (Abstract).
- Act as a resource person in international training workshop on “New Trends in Molecular Diagnosis of Genetic Diseases” at CEMB, University of the Punjab, Lahore, Pakistan on 25th -29th May, 2015 (Abstract).