

Dr. Muhammad Muzammal

Date of Birth: 27th Nov 1990

Domicile: Distt: Dera Ismail Khan, KPK

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D I Khan, KP, Pakistan



Academic Background				
Degree	Session	Subjects	Division/GPA	University/Board
Ph.D.	2021	Biotechnology	3.61 CGPA	Gomal University
M. Ed	2021	Education	1 st	Allama Iqbal Open University
B.Ed	2017	Education	1 st	Allama Iqbal Open University
M. Phil	2015	Biology	3.91 CGPA	Gomal University
Master	2012	Biology	1 st	Gomal University
B. Sc	2010	Chemi, Bot, Zoo	1 st	Gomal University
F. Sc	2008	Pre Medical	2 nd	D I Khan Board
SSc	2006	Biology	1 st	Bannu Board

Title of Research work		
Ph.D.	Molecular Genetic Study of Pakistani Families Inheriting Autosomal Recessive Intellectual Disability	Thesis Defense 30 April 2021
M. Phil	Study on the antibacterial activity of <i>Calotropis procera</i>	Thesis defense 11 Sep 2015

Advance Course during M.phil and Ph.D. Course Work

Advanced Biochemistry, Protein Chemistry, Genetic Engineering, Advances in Cell Biology
Advances in Molecular Biology, Cancer Biology.

Workshops Attended

1. As Practical Demonstrator

Fundamental Techniques in Biotechnology held on 9th - 10th Dec 2017, 2 Days workshop organized by Gomal Center of Biochemistry and Biotechnology, Gomal University, Dera Ismail Khan

2. As Participant

Recent trends in Enzyme Immunoassay Technology for Disease Diagnosis

1 Day workshop Jointly Organized by Institute of Microbiology (IM), Faculty of veterinary and animal sciences & Dept of Pharmacognosy (NPRL), Faculty of Pharmacy, Gomal University, Dera Ismail Khan.

Conferences Attended as participant

1. Recent advances in Biotechnology,

Held on April 26th - 27th, 2017

Organized by K.U.S.T, Kohat

2. International conference of Innovation and commercialization and Biotechnology

Held on 25th – 26th April, 2018

Organized by Food and Biotechnology research center, PCSIR laboratories complex, Lahore, Ministry of science and technology, Govt. of Pakistan

3. 4th conference on Computational Biology and Genomics

held on 27th -29th September 2017

Organized by Hazara University Mansehra

4. 3rd International Conference on innovative Biological and Public Health Research

Held ON 13-14 November 2019 at GC University, Lahore.

Organized by: Department of Zoology, GC University Lahore

Conferences Attended as Oral Presenter

1. 39th Congress of Zoology (International),

Held on 4-6th, March, 2019

Islamia Collage University, Peshawar

2. 1st International conference on Recent Updates in Biotechnology,

Held on 16-18th October, 2019

Organized By: Abdul Wali Khan University, Mardan

3. 1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021),

Held on 11-12 Aug 2021

Organized by Kohat University of Science and Technology Kohat Pakistan.

4. International Conference on Life Sciences (ICLS-23)
Held on May 11-12, 2023
Organized by Gomal University, Dera Ismail Khan, Pakistan

Professional Experience		
Job Title	Organization/Laboratory/Project	Duration
Visiting Faculty Member	Gomal Centre of Biochemistry and Biotechnology Gomal University	23-10-17 to 05-03-18
Visiting Faculty Member	Gomal Centre of Biochemistry and Biotechnology Gomal University	12-03-18 to 11-06-18
Research Assistant	HEC NPRU grant awarded to Dr. Muzammil Ahmad khan, Assistant Professor, Gomal Centre of Biochemistry and Biotechnology Gomal University	12-06-18 to 11-6-20
Assistant Professor (IPFP)	Gomal Centre of Biochemistry and Biotechnology Gomal University	01-03-2023-Present

List of Publications.

- Muzammal, M.** (2014). *Study on antibacterial activity of Calotropis procera* (No. e430v1). PeerJ PrePrints.
<https://doi.org/10.7287/peerj.preprints.430v1>
- Muzammal, M.,** Nayab, A., Khan, A. U., Rustam, S. A., Hayat, M., Khan, W. U., ... Qureshi, M. U. (2022). In silico analysis of *Renilla muelleri*, *Photinus pyralis* and *metridia longa* luciferase. *Abasyn Journal of Life Sciences*, 5(1), 44–45. doi:10.34091/ajls.5.1.5
- Farid, A., Javed, R., Hayat, M., **Muzammal, M.,** Khan, M. H., Ismail, S., & Rashid, S. A. (2021). Screening of *Strobilanthes urticifolia* wall. ex kuntze for Antitermite and insecticidal activities. *Abasyn J. life Sci*, 4, 40-45.
- Muzammal, M.,** Ahmad, S., Ali, M. Z., & Khan, M. A. (2021). Alopecia-mental retardation syndrome: Molecular genetics of a rare neuro-dermal disorder. *Annals of Human Genetics*, 85(5), 147-154.
- Gul, H., Shah, A.H., Harripaul, R., Abbasi, S.W., Faheem, M., Zubair, M., **Muzammal, M.,** Khan, S., Vincent, J.B. and Khan, M.A., 2021. Homozygosity mapping coupled with whole-exome sequencing and protein modelling identified a novel missense mutation in GUCY2D in a

consanguineous Pakistani family with Leber congenital amaurosis. *Journal of Genetics*, 100, pp.1-8.

6. **Muzammal, M.**, Zubair, M., Bierbaumer, S., Blatterer, J., Graf, R., Gul, A., ... & Windpassinger, C. (2019). Exome sequence analysis in consanguineous Pakistani families inheriting Bardet-Biedle syndrome determined founder effect of mutation c. 299delC (p. Ser100Leufs* 24) in BBS9 gene. *Molecular Genetics & Genomic Medicine*, 7(8), e834.
7. **Muzammal, M.**, Ali, M. Z., Ahmad, S., Huma, S., Ahmad, S., Abbasi, A. A., ... & Khan, M. A. (2021). The molecular genetics of UV-Sensitive syndrome: A rare dermal anomaly. *JPMA. The Journal of the Pakistan Medical Association*, 71(10), 2391-2396.
8. **Muzammal, M.**, Ali, M. Z., Brugger, B., Blatterer, J., Ahmad, S., Taj, S., ... & Windpassinger, C. (2022). A novel protein truncating mutation in L2HGDH causes L-2-hydroxyglutaric aciduria in a consanguineous Pakistani family. *Metabolic Brain Disease*, 1-10.
9. **Muzammaal. M et al.**, (2022) In Silico Structural Modeling of Wild-type and Mutant PRODH Proteins Involved in Psychiatric Disorder. *AJ Life Sci. 2022, 5 (1): 72-83*
10. Hussain, S., Nawaz, A., Hamid, M., Ullah, W., Khan, I.N., Afshan, M., Rehman, A., Nawaz, H., Halswick, J., Rehman, S.U. **Muzammal, M** Ahmad, S., 2022. Mutation screening of multiple Pakistani MCPH families revealed novel and recurrent protein-truncating mutations of ASPM. *Biotechnology and Applied Biochemistry*, 69(6), pp.2296-2303.
11. Fatima, S., **Muzammal, M.**, Khan, M. A., Farid, A., Kamran, M., Qayum, J., ... & Khan, M. A. (2021). CRISPR/Cas9 endonucleases: A new era of genetic engineering. *Abasyn J. life Sci*, 4, 29-39.
12. **Muzammal, M.**, Khan, M. A., Mohaini, M. A., Alsalman, A. J., Hawaj, M. A. A., & Farid, A. (2022). In Silico Analysis of Honeybee Venom Protein Interaction with Wild Type and Mutant (A82V+ P375S) Ebola Virus Spike Protein. *Biologics*, 2(1), 45-55.
13. Sana,F., Malkani, N., **Muzammal, M.**, Khan,MA., Khan, A.A, Usama,H,M.(2021) Stable Vesicle Production from Bacterial Total Lipid Extracts. *AJ Life Sci.* 2021, 4 (1): 1-10
14. Ahmed, I., **Muzammal, M.**, Abbasi, S.W., Khan, M.A. and Mir, A.,(2021) Whole Exome Analysis in Consanguineous Pakistani Families Determined ROR2 and RPTN as Novel Candidate Genes to be involved in Autosomal Recessive Non-Syndromic Intellectual Disability. *International Journal of Computational Intelligence in Control*,13: 2.

15. Khan, K. A., Khan, G. M., **Muzammal, M.**, Al Mohaini, M., Alsalman, A. J., Al Hawaj, M. A., ... & Farid, A. (2022). Preparation of Losartan Potassium Controlled Release Matrices and In-Vitro Investigation Using Rate Controlling Agents. *Molecules*, 27(3), 864.
16. Al Mohaini, M., Farid, A., **Muzammal, M.**, Ghazanfar, S., Dadrasnia, A., Alsalman, A. J., ... & Ismail, S. (2022). Enhancing lipase production of Bacillus salmalaya strain 139SI using different carbon sources and surfactants. *Applied Microbiology*, 2(1), 237-247.
17. Yaseen, M., Kamran, M., Farid, A., Ismail, S., **Muzammal, M.**, Amir, K. A., ... & Rashid, S. A. (2022). Antibacterial, Hemagglutination, and Insecticidal Activity Studies on the Solvent Extracts of the Roots of Olea ferruginea. *Makara Journal of Science*, 26(1), 8.
18. Akmal, U., Ghorri, I., Elsbali, A.M., Alharbi, B., Farid, A., Alamri, A.S., **Muzammal, M.**, Asdaq, S.M.B., Naiel, M.A. and Ghazanfar, S., 2022. Probiotic and antioxidant potential of the Lactobacillus spp. isolated from artisanal fermented pickles. *Fermentation*, 8(7), p.328.
19. Al Mohaini, M., Farid, A., Alsalman, A.J., Al Hawaj, M.A., Alhashem, Y.N., Ghazanfar, S., **Muzammal, M.**, Khan, M.H., Dadrasnia, A. and Ismail, S., 2022. Screening of Anticancer and Immunomodulatory Properties of Recombinant pQE-HAS113 Clone Derived from Streptococcus Equi. *Pakistan Journal of Medical & Health Sciences*, 16(02), pp.1100-1100.
20. Al Mohaini, M., Farid, A., **Muzammal, M.**, Dadrasnia, A., Alsalman, A. J., Al Hawaj, M. A., ... & Ismail, S. (2022). Pathological study of Pasteurella Multocida Recombinant Clone ABA392. *Pakistan Journal of Medical & Health Sciences*, 16(02), 1112-1112.
21. Ali, M. Z., Farid, A., Ahmad, S., **Muzammal, M.**, Mohaini, M. A., Alsalman, A. J., ... & Khan, M. A. (2022). In Silico Analysis Identified Putative Pathogenic Missense nsSNPs in Human SLITRK1 Gene. *Genes*, 13(4), 672.
22. Saadullah, M., Asif, M., Farid, A., Naseem, F., Rashid, S.A., Ghazanfar, S., **Muzammal, M.**, Ahmad, S., Bin Jardan, Y.A., Alshaya, H. and Saleem, M.H., 2022. A novel distachionate from breynia distachia treats inflammations by modulating COX-2 and inflammatory cytokines in rat liver tissue. *Molecules*, 27(8), p.2596.
23. **Muzammal, M.**, Di Cerbo, A., Almusalami, E. M., Farid, A., Khan, M. A., Ghazanfar, S., ... & Alsaleh, A. A. (2022). In Silico Analysis of the L-2-Hydroxyglutarate Dehydrogenase Gene Mutations and Their Biological Impact on Disease Etiology. *Genes*, 13(4), 698.
24. Abid, S., Farid, A., Abid, R., Rehman, M.U., Alsanie, W.F., Alhomrani, M., Alamri, A.S., Asdaq, S.M.B., Hefft, D.I., Saqib, S. and **Muzammal, M.**, 2022. Identification, biochemical

characterization, and safety attributes of locally isolated *Lactobacillus fermentum* from *Bubalus bubalis* (buffalo) milk as a probiotic. *Microorganisms*, 10(5), p.954.

25. Israr, M., Pugliese, N., Farid, A., Ghazanfar, S., Di Cerbo, A., **Muzammal, M.**, ... & Khan, K. A. (2022). Preparation and characterization of controlled-release floating bilayer tablets of esomeprazole and clarithromycin. *Molecules*, 27(10), 3242.
26. Alsalman, A. J., Farid, A., Al Mohaini, M., **Muzammal, M.**, Khan, M. H., Dadrasnia, A., & Ismail, S. (2022). Chitinase Activity by Chitin Degrading Strain (*Bacillus Salmalaya*) in Shrimp Waste. *Int. J. Curr. Res. Rev*, 14, 11-17.
27. Alsalman, A. J., Farid, A., Al Mohaini, M., Al Hawaj, M. A., **Muzammal, M.**, Khan, M. H., ... & Ismail, S. (2022). Analysis and Characterization of Chitinase in *Bacillus salmalaya* Strain 139SI. *Int. J. Curr. Res. Rev*, 14, 31-36.
28. Alhashem, Y. N., Farid, A., Al Mohaini, M., **Muzammal, M.**, Khan, M. H., Dadrasnia, A., ... & Ismail, S. (2022). Protein Isolation and Separation Techniques of *Pasteurella multocida* via One- and Two-Dimensional Gel Electrophoresis. *Int. J. Cur. Res. Rev*, 14(12), 1-8.
29. Al Hawaj, M. A., Farid, A., Al Mohaini, M., Alsalman, A. J., **Muzammal, M.**, Khan, M. H., ... & Ismail, S. (2022). Biosurfactant Screening and Antibiotic Analysis of *Bacillus salmalaya*. *Int. J. Curr. Res. Rev*, 14, 56.
30. Abid, R., Ghazanfar, S., Farid, A., Sulaman, S.M., Idrees, M., Amen, R.A., **Muzammal, M.**, Shahzad, M.K., Mohamed, M.O., Khaled, A.A. and Safir, W., 2022. Pharmacological Properties of 4', 5, 7-Trihydroxyflavone (Apigenin) and Its Impact on Cell Signaling Pathways. *Molecules*, 27(13), p.4304.
31. Hameed, A., Condò, C., Tauseef, I., Idrees, M., Ghazanfar, S., Farid, A., **Muzammal, M.**, Al Mohaini, M., Alsalman, A.J., Al Hawaj, M.A. and Adetunji, C.O., 2022. Isolation and characterization of a cholesterol-lowering bacteria from *Bubalus bubalis* raw milk. *Fermentation*, 8(4), p.163.
32. **Muzammal, M.**, Firoz, A., Ali, H. M., Farid, A., Khan, M. A., & Hakeem, K. R. (2022). Lumateperone Interact with S-Protein of Ebola Virus and TIM-1 of Human Cell Membrane: Insights from Computational Studies. *Applied Sciences*, 12(17), 8820.
33. Wahab, A., Farid, A., & **Muzammal, M.** (2022). Phytochemical, Antibacterial, Antifungal, and Hemagglutination Screening of *Quercus agrifolia* Nee Root Extracts. *Makara Journal of Science*, 26(2), 5.

34. Khan, K.A., Zizzadoro, C., Di Cerbo, A., Pugliese, N., Khan, G.M., Ghazanfar, S., Almusalami, E.M., **Muzammal, M.**, Alsalman, K.J. and Farid, A., 2022. Preparation and In Vitro Evaluation of Controlled-Release Matrices of Losartan Potassium Using Ethocel Grade 10 and Carbopol 934P NF as Rate-Controlling Polymers. *Polymers*, 14(15), p.2993.
35. Farid, A., **Muzammal, M.**, Ghazanfar, S., Ismail, S., Ullah, A., Dauda, W. P., ... & Idrees, M. (2022). Green cleaning activity of *Bacillus salmalaya* 139Sl: a novel strain for removing common household stains. *Biomass Conversion and Biorefinery*, 1-8.
36. Aziz, T., Farid, A., Haq, F., Kiran, M., Ullah, A., Zhang, K., **Muzammal, M.** ... & Al Jaouni, S. K. (2022). A review on the modification of cellulose and its applications. *Polymers*, 14(15), 3206.
37. Yasmeen, U., Haq, F., Kiran, M., Farid, A., Ullah, N., Aziz, T., Haroon, M., Mehmood, S., **Muzammal, M.**, Ghazanfar, S. and Alhomrani, M., 2022. Synthesis of Starch-Grafted Polymethyl Methacrylate via Free Radical Polymerization Reaction and Its Application for the Uptake of Methylene Blue. *Molecules*, 27(18), p.5844.
38. Ahmad, S., Ali, M. Z., **Muzammal, M.**, Mir, F. A., & Khan, M. A. (2022). The molecular genetics of human appendicular skeleton. *Molecular Genetics and Genomics*, 297(5), 1195-1214.
39. Ahmad, S., Ali, M. Z., **Muzammal, M.**, Khan, A. U., Ikram, M., Muurinen, M., ... & Mäkitie, O. (2023). Identification of GLI1 and KIAA0825 Variants in Two Families with Postaxial Polydactyly. *Genes*, 14(4), 869.
40. Hayat, M., Nawaz, A., Chinnam, S., **Muzammal, M.**, Latif, M. S., Yasin, M., ... & Farid, A. (2023). Formulation development and optimization of herbo synthetic gel: In vitro biological evaluation and in vivo wound healing studies. *Process Biochemistry*, 130, 116-126.
41. Ullah, R., Touseef, I., Abid, R., Farid, A., Ahmad, S., El Enshasy, H.A., Aksoy, A., Aljarba, N.H., Al-Hazani, T.M., **Muzammal, M.** and Ghazanfar, S., 2023. Exploitation of selected plant extracts as bio-control against fungal contaminants in animal feed. *Journal of King Saud University-Science*, 35(5), p.102685.
42. Awan, M.F., Ali, S., Ullah, I., Ullah, A., Tariq, M., Iqbal, M.S., Khalid, A., Fatima, S., Shafiq, Y., Nasir, I.A. and **Muzammal, M.**, 2023. Expression Studies of Synthetic Sucrose Isomerase Gene 1 (SySIG1) in *Saccharum officinarum* L. *Plant Molecular Biology Reporter*, pp.1-13.

43. Muhammad, N., Hussain, S.I., Rehman, Z.U., Khan, S.A., Jan, S., Khan, N., **Muzammal, M.**, Abbasi, S.W., Kakar, N., Khan, M.A. and Mirza, M.U., Autosomal Recessive Variants c. 953A> C and c. 97-1G> C in NSUN2 Causing Intellectual Disability: A Molecular Dynamics Simulation Study of Loss-of-Function Mechanisms. *Frontiers in Neurology*, 14, p.913.
44. Ayaz, M., **Muzammal, M.**, Fatima, S., Fatima, S., Khan, J., Khan, M. A., ... & Wei, L. (2023). Genetic basis of β -thalassemia in families of Pashtun ethnicity in Dera Ismail Khan District of Khyber Pakhtun-khwa province, Pakistan. *Expert Review of Hematology*, (just-Published).

5. **Abstract Published**

1. **Exome sequence analysis of Consanguineous Pakistani Families inheriting Bardet Biedl Syndrome determined founder effect of mutation c.299del C(P.ser100Leufs*24) in BBS9 Gene.**

39th Congress of Zoology (International), Held on 4-6th March, 2019

Islamia Collage University, Peshawar (**First Author**)

2. **Genetic Analysis of A Consanguineous Pakistani Family Inheriting Xeroderma Pigmentosum Found A Novel Protein Truncating Mutation P.Asp98* In Gene Xpc.**

1st Annual Health Research Conference 24-25 September 2018 conducted under the authority of the Ministry of National Health Services, Regulation and Coordination and Pakistan Health Research Council, Islamabad (**Co-author**)

3. **Genetic Diagnosis of Three Consanguineous Pakistani Families, Suffering From Bardet Biedl Syndrome, Revealed Founder Mutation in BBS9 Gene**

1st International Conference on Recent Updates in Biotechnology 2019 (ICRUB-2019) Held on 16-18th October, 2019

Organized by Department of Biotechnology, Abdul Wali Khan University Mardan, Pakistan (**First Author**)

4. **In-Vitro effect of domesticated Animal's Saliva against Puss Forming Bacteria**

1st International Conference on Recent Updates in Biotechnology 2019 (ICRUB-2019) Held on 16-18th October, 2019. (**Co-author**)

Organized by Department of Biotechnology, Abdul Wali Khan University Mardan, Pakistan.

5. **Molecular genetics and cellular characterization of a missense mutation in *SLITRK1* associated with nonsyndromic autosomal recessive intellectual disability**

The 52nd European Society of Human Genetics (ESHG). The Swedish Exhibition & Congress

Center, Gothenburg, Sweden Held on June 2019 (**Co-author**)

6. Exome sequence analysis in a consanguineous Pakistani family, suffering from intellectual disability, determined a novel frameshift mutation p.(Ala62Profs*24) in L2HGDH.

1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021), Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat 26000, Pakistan. 11-12 Aug 2021. (**First Author**)

7. In silico structural modeling of reported mutations in PRODH proteins that are responsible for psychiatric disorder

1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021), Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat 26000, Pakistan. 11-12 Aug 2021. (**First Author**)

8. In Silico Modeling and Docking Analysis of Different Wheat Proteins

1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021), Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat 26000, Pakistan. 11-12 Aug 2021. (**Co-author**)

9. In Silico Interactional Analysis of Different Proteins Obtained from Honeybee Venom against Normal and Mutant (A82V +P375S) Ebola Virus Spike Protein

1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021), Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat 26000, Pakistan. 11-12, Aug 2021. (**Co-author**)

10. In silico study of light emitting substrate extracted form Renilla Muelleri, Photinus Pyralis and Metridia Longa

1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021), Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat 26000, Pakistan. 11-12, Aug 2021. (**Co-author**)

11. Screening of Sideroxylon Mascatense's Roots and Aerial Parts Extracts for Antimicrobial and Antioxidant Activities

1st International Hybrid Mode Conference on Emerging Innovative Research Trends in Biology (EIRTB 2021), Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology Kohat 26000, Pakistan. 11-12 Aug 2021. (**Co-author**)

12. Analysis of chitinase in Bacillus salmalaya strain 139SI and characterization

Second International Congress on Biological And Health Sciences online,Turkey
<https://www.biohealthcongress.com/>ISBN: 978-605-71368-0-0.

Published: 15/03/2022.

13. Eco-Friendly Cleaning Activity of Bacillus salmalaya 139SI: A Novel Strain for Cleaning Common Household Strains

Second International Congress on Biological And Health Sciences online,Turkey
<https://www.biohealthcongress.com/>ISBN: 978-605-71368-0-0.

Published: 15/03/2022.

14. Enhancing Lipase Production of Bacillus salmalaya Strain 139SI Using Different Carbon Sources and Surfactants

Second International Congress on Biological And Health Sciences online,Turkey
<https://www.biohealthcongress.com/>ISBN: 978-605-71368-0-0.

Published: 15/03/2022

15. Antimicrobial, Hemagglutination and Phytochemical Assessment of Quercus Agrifolia Nee Root Extracts

4th international conference on emerging trends in bioinformatics & biosciences (ICETBB-2022)
September 15-17, 2022 organized by: Department of Bioinformatics, Hazara university,
Mansehra, Pakistan

16. Comparative Study of Biological Activity of Glutathione, Sodium Tungstate and Glutathione-Tungstate Mixture

4th international conference on emerging trends in bioinformatics & biosciences (ICETBB-2022)
September 15-17, 2022 organized by: Department of Bioinformatics, Hazara university,
Mansehra, Pakistan

17. Whole Exome Analysis Determined a Novel Splice Mutation in a Pakistani Family Inheriting Congenital Stationary Night Blindness (CSNB)

4th international conference on emerging trends in bioinformatics & biosciences (ICETBB-2022)
September 15-17, 2022 organized by: Department of Bioinformatics, Hazara university,
Mansehra, Pakistan

18. Protective Role of Glutathione in Tungsten-Induced Toxicity in Blood Components: A Pharmacological and Toxicological Perspective

4th international conference on emerging trends in bioinformatics & biosciences (ICETBB-2022)
September 15-17, 2022 organized by: Department of Bioinformatics, Hazara university,
Mansehra, Pakistan

19. Studies on the Hemagglutination, Insecticidal, and Antibacterial Properties of the Root Extracts Of Olea Ferruginea

4th international conference on emerging trends in bioinformatics & biosciences (ICETBB-2022)
September 15-17, 2022 organized by: Department of Bioinformatics, Hazara university,
Mansehra, Pakistan.

20. Lumateperone Interact with S-Protein of Ebola Virus and TIM-1 of Human Cell Membrane: Insights from Computational Studies

International Conference on Life Sciences (ICLS-23) May 11-12, 2023 Gomal University, Dera
Ismail Khan, Pakistan

21. In Silico Functional Analysis of RPIA Gene Mutations Causing Ribose-5-Phosphate Isomerase Deficiency: A Rarest Known Inherited Metabolic Disorder

International Conference on Life Sciences (ICLS-23) May 11-12, 2023 Gomal University, Dera
Ismail Khan, Pakistan

22. Pathogenic Variants in KIAA0825 & GLI1 Causes Postaxial Polydactyly in two Consanguineous Pakistani Families

International Conference on Life Sciences (ICLS-23) May 11-12, 2023 Gomal University, Dera
Ismail Khan, Pakistan

Seminar Attended

World Blood Donor Day
Held at International Islamic University, Islamabad
May 11, 2017

eLetter Online

Comments on “Triallelic Inheritance in Bardet-Biedl Syndrome, a Mendelian Recessive Disorder”, in the era of advance genomics.

<https://science.sciencemag.org/content/293/5538/2256/tab-e-letters>

Scholarship

HEC International Research support initiative program (IRSIP) Awardee of 44th meeting for University of Toronto Canada (Unable to join University of Toronto because of COVID-19)

Online Blogs

1. Calotropis Procera Neglected wonder Plant <https://mediaforpublic.com/576/>

Online on 7th April 2020

2. **Ebola Virus Disease: West African Outbreak** <https://mediaforpublic.com/603/>

<https://mediaforpublic.com/category/articals-on-public-and-other-issues-2/>

Online on 10th April 2020.

3. **Pathogenesis of COVID-19**

<https://mediaforpublic.com/661/>

Online on 23 April 2020

4. **Facts You should Know about Broiler Chicken**

<https://mediaforpublic.com/facts-you-should-know-about-broiler-chicken/>

Online on 16 May 2020

5. **Use of Educational Technology in Science Education**

<https://sindhbiotech.blogspot.com/2020/06/Online-Learning-in-science.html>

Online on 10 June 2020

References.

1. Dr. Muzammil Ahmad Khan

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