

# REHAN SADIQ SHAIKH

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## 1. CAREER OBJECTIVES

- To be an accomplished educator with the ability to teach, motivate and direct students while establishing their high interest and providing them the vision for research in the areas of biotechnology. Consistently maintain excellent relations with students, faculty, and administrator.
- To involve in research work on genomics, proteomics, transcriptomics, and its merger with bioinformatics with special reference to Human Diseases and Biotechnology.
- To apply professional and academic knowledge to challenging problems leading to growth and development of the organization and career advancement.

## 2. PERSONAL INFORMATION

Father Name: Muhammad Sadiq Shaikh.  
Date of Birth: January 22, 1980.  
Domicile: Multan.  
Nationality: Pakistani.  
N.I.C: 35201-1507504-9

## 3. ACADEMIC QUALIFICATION

**2006 PhD (Molecular Biology)**  
National Centre for Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan.  
Dissertation Entitled: "Genotype/Phenotype Correlation for Hereditary Hearing Impairment Loci".

**2002 M. Phil (Molecular Biology) 1<sup>st</sup> Div**  
National Centre for Excellence in Molecular Biology University of the Punjab, Lahore, Pakistan.  
Dissertation Entitled: "Linkage Studies and Mutational Analysis of *DFNB2/USH1B*".

**2000 B-Pharmacy 1<sup>st</sup> Div**  
Faculty of Pharmacy, Bahuddin Zakariya University, Multan, Pakistan.

**1996 H.S.S.C (Pre-Medical) 1<sup>st</sup> Div**  
Govt. College Bosan Road, Multan, Pakistan.

**1994 S.S.C 1<sup>st</sup> Div**  
LaSalle High School, Multan.

## 4. PUBLICATIONS

(Impact Factor-2019: **128.189**; h-index: **22**; i10-index: **31**; Google Scholar Citation: **1088**)

### ACCEPTED & PUBLISHED PAPER

(\* First / Corresponding Author)

S.No	Title, Authors & Journal	Year	IF / Quartile	Google Scholar Citation
52	Zafar S, Bai B, Guo J, Muhammad SA, Naqvi STQ, Shabbir MN, Imran I, <b>Shaikh RS</b> , Ali A Experimental Study of Potential CD8+ Trivalent Synthetic Peptides for Liver Cancer Vaccine Development Using Sprague Dawley Rat Models. <i>Accepted in BioMed Research International</i>	2022	3.411/Q2	
51	Yousaf S, Tariq N, Sajid Z, Sheikh SA, Kausar T, Waryah YM, <b>Shaikh RS</b> , Waryah AM, Sethna S, Riazuddin S, Ahmed ZM. Delineating the Molecular and Phenotypic Spectrum of the CNGA3-Related Cone Photoreceptor Disorder in Pakistani Families. <i>Genes 13, 617.</i>	2022	4.096/Q2	

- <https://doi.org/10.3390/genes13040617>
- 50 Naqqash T\*, Wazir N, Aslam K, Shabbier G, Tahir M, Shaikh RS\* First report on the probiotic potential of *Mammaliicoccus sciuri* isolated from raw goat milk. **Published Online in Bioscience of Microbiota, Food and Health** <https://doi.org/10.12938/bmfh.2021-022> 2022 3.12/Q2
- 49 Sadia S, Shaikh RS, Tariq N, Kausar T. Analysis of P4 receptors polymorphisms in the development of breast cancer: A study of Southern Punjab (Pakistan) **Pure Appl. Biol.** <http://dx.doi.org/10.19045/bspab.2022.110020> 2021
- 48 Abid K, Bukhari S, Asif M, Sattar A, Arshad M, Aktas M, Ozubek S, Shaikh RS\*, Iqbal F. Molecular detection and prevalence of Theileria ovis and Anaplasma marginale in sheep blood samples collected from Layyah district in Punjab, Pakistan. **Trop Anim Health Prod 53, 439** <https://doi.org/10.1007/s11250-021-02870-5> 2021 1.559/Q2
- 47 Sajid Z, Yousaf S, Waryah YM, Mughal TA, Kausar T, Shahzad M, Rao AR, Abbasi AA, Shaikh RS, Waryah AM, Riazuddin S, Ahmed ZM. Genetic Causes of Oculocutaneous Albinism in Pakistani Population. **Genes 12(4):492** 2021 4.096/Q2
- 46 Bootpetch TC, Hafrén L, Elling CL, Baschal EE, Manichaikul AW, Pine HS, Szeremeta W, Scholes MA, Cass SP, Larson ED, Chan KH, Ishaq R, Prager JD, Shaikh RS, Gubbels SP, Yousaf A, University of Washington Center for Mendelian Genomics, Wine TM, Bamshad MJ, Yoon PJ, Jenkins HA, Nickerson DA, Streubel SO, Friedman NR, Frank DN, Einarsdottir E, Kere J, Riazuddin S, Daly KA, Leal SM, Ryan AF, Mattila PS, Ahmed ZM, Sale MM, Chonmaitree T, Santos-Cortez RLP. Multi-omic studies on missense PLG variants in families with otitis media. **Scientific Reports 10, 15035** 2020 3.998/Q1
- 45 Zafar S, Shahzad M, Ishaq R, Yousaf A, Shaikh RS, Akram J, Ahmed ZM, Riazuddin S. Novel Mutations in CLPP, LARS2, CDH23, and COL4A5 Identified in Familial Cases of Prelingual Hearing Loss. **Genes 11(9), 978** 2020 4.096/Q2
- 44 Yousaf S, Sethna S, Chaudhary MA, Shaikh RS, Riazuddin S, Ahmed ZM. Molecular characterization of SLC24A5 variants and evaluation of Nitisinone treatment efficacy in a zebrafish model of OCA6. **Pigment Cell & Melanoma Research 33(4): 556-565** 2020 3.683/Q1
- 43 Ismail M, Sajid M, Ali A, Wu X, Muhammad SA\*, Shaikh RS\*. Prediction of Prophylactic Peptide Vaccine Candidates for Human Papillomavirus (HPV): An Immunoinformatics and Reverse Vaccinology Approach. **Current Proteomics (2020) 17: 1.** <https://doi.org/10.2174/1570164617999200505095802> 2020 0.68/Q4
- 42 Aslam S, Khosa T, Akbar A, Latif M, Chaudhary MA, Shaikh RS, Iqbal F. Single Nucleotide Polymorphism (rs7543472) in EPHA2 gene is associated with Age-related Cataract in subjects enrolled from Multan in Southern Punjab: a case-control study. **Journal of the Pakistan Medical Association 70: 583-590** 2020 0.573/Q4
- 41 Asif M, Parveen A, Ashraf S, Hussain M, Aktas M, Ozubek S, Shaikh RS\*, Iqbal F\* First Report Regarding the Simultaneous Molecular Detection of Anaplasma marginale and Theileria annulata in Equine Blood Samples Collected from Southern Punjab in Pakistan. **Acta Parasitologica 65(1):259-263** 2019 1.019/Q4 1
- 40 Zhao D, Wang Y, Zhao S, Wakeel M, Wang Z, Shaikh RS, Hayat T, Chen C. A simple method for preparing ultra-light graphene aerogel for rapid removal of U(VI) from aqueous solution. **Environmental Pollution 251: 547-554** 2019 6.792/Q1 5
- 39 Larson ED, Magno JPM, Steritz MJ, Llanes EGDV, Cardwell J, Pedro M, 2019 4.124/Q1 3

Roberts TB, Einarsdottir E, Rosanes RAQ, Greenlee C, Santos RAP, Yousaf A, Streubel SO, Santos ATR, Ruiz AG, Lagrana-Villagrancia SM, Ray D, Yarza TKL, Scholes MA, Anderson CB, Acharya A; University of Washington Center for Mendelian Genomics, Gubbels SP, Bamshad MJ, Cass SP, Lee NR, **Shaikh RS**, Nickerson DA, Mohlke KL, Prager JD, Cruz TLG, Yoon PJ, Abes GT, Schwartz DA, Chan AL, Wine TM, Cutiongco-de la Paz EM, Friedman N, Kechris K, Kere J, Leal SM, Yang IV, Patel JA, Tantoco MLC, Riazuddin S, Chan KH, Mattila PS, Reyes-Quintos MRT, Ahmed ZM, Jenkins HA, Chonmaitree T, Hafrén L, Chiong CM, Santos-Cortez RLP. A2ML1 and otitis media: novel variants, differential expression and relevant pathways. *Human Mutation* **40(8):1156-1171**

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| 38 | Rashid M‡, Yousaf S‡, Sheikh SA‡, Sajid Z, Shabbir AS, Kausar T, Tariq N, Usman M, <b>Shaikh RS</b> , Ali M, Bukhari SA, Waryah AM, Qasim M, Riazuddin S, Ahmed ZM. Identities and frequencies of variants in CYP1B1 causing primary congenital glaucoma in Pakistan. <i>Molecular Vision</i> <b>25:144-154</b> (‡ All Contributed Equally)  | 2019 | 2.202/Q2  | 3  |
| 37 | Santos-Cortez RLP, Chiong CM, Frank DN, Ryan AF, Giese APJ, Bootpetch RT, Daly KA, Steritz MJ, Szeremeta W, Pedro M, Pine H, Yarza TKL, Scholes MA, Llanes EGDV, Yousaf S, Friedman N, Tantoco MLC, Wine TM, Labra PJ, Benoit J, Ruiz AG, de la Cruz RAR, Greenlee C, Yousaf A, Cardwell J, Nonato RMA, Ray D, Ong KMC, So E, Robertson CE, Dinwiddie J, Lagrana-Villagrancia SM, University of Washington Center for Mendelian Genomics, Gubbels SP, <b>Shaikh RS</b> , Cass SP, Einarsdottir E, Lee NR, Schwartz DA, Gloria-Cruz TLI, Bamshad MJ, Yang IV, Kere J, Abes GT, Prager JD, Riazuddin S, Chan AL, Yoon PJ, Nickerson DA, Cutiongco-de la Paz EM, Streubel SO, Reyes-Quintos MRT, Jenkins HA, Mattila P, Chan KH, Mohlke KL, Leal SM, Hafrén L, Chonmaitree T, Sale MM, Ahmed ZM. FUT2 Variants Confer Susceptibility to Familial Otitis Media <i>American Journal of Human Genetics</i> <b>103(5):679-690</b> . | 2018 | 10.502/Q1 | 16 |
| 36 | Malik MI‡, Qamar M‡, Ain Q, Hussain MF, Dahmani M, Ayaz M, Mahmood AK, Davoust B, <b>Shaikh RS</b> , Iqbal F Molecular detection of Ehrlichia canis in dogs from three districts in Punjab (Pakistan) <i>Veterinary Medicine and Science</i> <b>4: 126-132</b> (‡ Both Contributed Equally)  | 2018 | 0.954/Q3  | 10 |
| 35 | Mustafa S‡, Fatima H‡, Khosa T, Fatima S, Akbar A, <b>Shaikh RS</b> , Furhan Iqbal. Association of Single nucleotide polymorphism in CD28(C/T-I3 + 17) and CD40 (C/T-1) genes with the Graves' disease. <i>Journal of the Pakistan Medical Association</i> <b>68(1): 3-9</b> (‡ Both Contributed Equally)  | 2018 | 0.573/Q4  | 1  |
| 34 | Khosa T‡, Aslam S‡, Mustafa S, Akbar A, <b>Shaikh RS</b> , Iqbal F Association of Single Nucleotide Polymorphisms in XRCC1 (194) and XPD (751) with Age related cataract. <i>International Ophthalmology</i> <b>38(3):1135-1146</b> (‡ Both Contributed Equally)   | 2018 | 1.314/Q4  | 2  |
| 33 | Shahzad M‡, Yousaf S‡, Waryah YM, Gul H, Kausar T, Tariq N, Mehmood U, Ali M, Khan MA, Waryah AM, <b>Shaikh RS</b> , Riazuddin S, Ahmed ZM & University of Washington Center for Mendelian Genomics. Molecular outcomes, clinical consequences, and genetic diagnosis of Oculocutaneous Albinism in Pakistani population. <i>Scientific Reports</i> <b>7:44185</b> , doi: 10.1038/srep44185 (‡ Both Contributed Equally)   | 2017 | 3.998/Q1  | 10 |
| 32 | Hussain MF, Qamar M, Malik MI, Hussain M, Saeed Z, <b>Shaikh RS*</b> , Iqbal F* (2017) Molecular detection of Anaplasma in apparently healthy Cholistan breed of cattle from the Bahawalpur district, Pakistan. <i>Tropical Biomedicine</i> <b>34(1): 37-44</b>  | 2017 | 0.509/Q4  | 1  |

31	Qamar M‡, Malik MI‡, Latif M, Quratulain, Aktas M, <b>Shaikh RS*</b> , Iqbal F* (2017) Molecular detection and prevalence of Hepatozoon canis in dogs from Punjab (Pakistan) and hematological profile of infected dogs. <i>Vector-Borne and Zoonotic Diseases 17(3):179-184</i> (§ Both Contributed Equally)	2017	2.041/Q3	9
30	Hussain M, Saeed Z, Gulsher M, <b>Shaikh RS</b> , Ali M, Akhtar M, Iqbal F (2016) Molecular Detection and Seasonal Prevalence of <i>Trypanosoma brucei</i> and its Effect on Hematobiochemical Parameters in Donkeys from Dera Ghazi Khan District in Southern Punjab, Pakistan. <i>Pakistan Journal of Zoology 48(6): 1781-1786</i>	2016	-	6
29	Hussain M‡, Saeed Z‡, Gulsher M, <b>Shaikh RS</b> , Ali M, Ahmad AN, Hussain I, Akhtar M, Iqbal F (2016) A report on the molecular detection and seasonal prevalence of <i>Trypanosoma brucei</i> in Dromedary Camels from Dera Ghazi Khan District in Southern Punjab (Pakistan). <i>Tropical Biomedicine 33(2): 1-8</i> (§ Both Contributed Equally)	2016	0.509/Q4	2
28	Qadir MI, Abbas K, Younus A & <b>Shaikh RS</b> (2016) Antibacterial activity of sea buckthorn ( <i>Hippophae rhamnoides L.</i> ) against methicillin resistant <i>Staphylococcus aureus</i> (MRSA). <i>Pakistan Journal of Pharmaceutical Sciences 29(5): 1705-1707</i>	2016	0.562/Q4	13
27	Hameed H, Faryal M, Aslam MA, Akbar A, Saad ABA, Pasha MB, Latif M, <b>Shaikh RS</b> , Ali M, Iqbal F (2016) Association of Polymorphisms (rs 1799782, rs25489 and rs25487) in XRCC1 and (rs 13181) XPD genes with Acute Coronary Artery Syndrome in Subjects from Multan, Pakistan. <i>Pakistan Journal of Pharmaceutical Sciences 29(3): 869-876</i>	2016	0.562/Q4	4
26	Saeed Z, Iqbal F, Hussain M, <b>Shaikh RS</b> , Farooq U, Akbar A, Gulsher M, Ayaz MM, Mahmood SA, Ali M, Aktas M (2016) Molecular Prevalence and Haematology of Tropical Theileriosis in Cholistani Cattle from Nomadic Herds of the Cholistan Desert, Pakistan. <i>Kafkas Univ Vet Fak Derg 22 (2): 281-286</i>	2016	0.489/Q4	
25	Yousaf S, Shahzad M, Tasleem K, Sheikh SA, Tariq N, Shabbir AS, University of Washington Center for Mendelian Genomics, Ali M, Waryah AM, <b>Shaikh RS</b> , Riazuddin S, Ahmed ZM Identification and clinical characterization of Hermansky-Pudlak syndrome alleles in the Pakistani population. <i>Pigment Cell &amp; Melanoma Research 29(2):231-235</i>	2016	3.683/Q1	16
24	Shahzad M, Campos J, Tariq N, Herraiz Serrano C, Yousaf R, Jimenez-Cervantes C, Waryah Y, Dad H, Blue E, Sobreira N, López-Giráldez F, Kausar T, Ali M, Ahmed W, Riazuddin S, <b>Shaikh RS</b> , Garcia-Borron JC, Ahmed ZM. Identification and functional characterization of natural human melanocortin 1 receptor (MC1R) mutant alleles in Pakistani population. <i>Pigment Cell &amp; Melanoma Res.28(6):730-735</i>	2015	3.683/Q1	5
23	Razzaq F, Khosa T, Ahmad S, Hussain M, Saeed Z, Khan MA, <b>Shaikh RS</b> , Ali M, Iqbal F. Prevalence of <i>Anaplasma phagocytophilum</i> in horses from Southern Punjab (Pakistan). <i>Tropical Biomedicine 32(2): 233-239</i>	2015	0.509/Q4	12
22	Fatima M, Saeed S, <b>Shaikh RS</b> , Ali M, Iqbal F. A Study on Molecular Detection of <i>Theileria lestoquardi</i> by PCR Amplification in Apparently Healthy Small Ruminants from Five Districts of Southern Punjab. <i>Pakistan Journal of Zoology 47(2), pp. 441-446</i>	2015	-	12
21	Saeed A, Kanwal S, Arshad M, Ali M, <b>Shaikh RS</b> , Abubakar M. Foot-and-mouth disease; an overview of motives of disease spread and efficacy of available vaccines. <i>Journal of Animal Science &amp; Technology 57:10</i>	2015	1.685/Q2	20
20	Saeed S, Jahangir M, Fatima M, Khattak RM, <b>Shaikh RS</b> , Ali M, Iqbal F. PCR based detection of <i>Theileria lestoquardi</i> in apparently healthy sheep and goats from two districts in Khyber Pukhtoon Khwa (Pakistan).	2015	0.509/Q4	12

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- 19 **Shaikh RS\***, Reuter P, Sisk RA, Kausar T, Shahzad M, Maqsood MI, 2014 3.657/Q2 19  
Yousif A, Ali M, Riazuddin S, Wissinger B, Ahmed ZM. Homozygous  
missense variant in the human *CNGA3* channel causes cone-rod  
dystrophy. **European Journal of Human Genetics 23, 473-480**
- 18 Taqaddus A, Saad ABA, Pasha B, Latif M, Safdar S, **Shaikh RS**, Ali M, 2014 0.562/Q4 10  
Iqbal F. Association of Endothelial Nitric Oxide Synthase (*eNOS*) Gene  
Polymorphism (Glu 298 Asp) with Coronary Artery Disease in Subjects  
from Multan (Pakistan). **Pakistan Journal of Pharmaceutical Sciences**  
**27(2): 357-363**
- 17 Tabish TA, Butt TZ, Ali M, Ali M, **Shaikh RS**, Atiq S, Draghi L. In Vivo 2014 1.738/Q3 1  
Cytotoxic Evaluation of Ti-Ni-Fe Shape Memory Alloys. **Materials**  
**Technology: Advanced Performance Materials 29(3): 139-143**
- 16 Ashraf QA, Khan AU, Khatak RM, Ali M, **Shaikh RS**, Ali M, Iqbal F. A 2013 2.749/Q2 25  
report on high prevalence of Anaplasma sp. in buffaloes from two  
provinces in Pakistan. **Ticks and Tick Borne Diseases 4: 395–398**
- 15 Sohail A, Kanwal N, Ali M, Sadia S, Masood AI, Ali F, Iqbal F, 2013 3.292/Q2 26  
Crickmore N, **Shaikh RS\***, Sayyed AH. Effects of Glutathione-S-  
Transferase polymorphisms on the risk of breast cancer: a Population-  
Based Case-Control Study in Pakistan. **Environmental Toxicology &**  
**Pharmacology 35(2): 143–153**
- 14 Kausar T, Asim M, Ali M, **Shaikh RS**, Ahmed ZM. OCA5, a novel locus 2013 3.578/Q2 68  
for non-syndromic oculocutaneous albinism, maps to chromosome 4q24  
**Clinical Genetics 84(1):91-93**
- 13 Kausar T, Jaworek TJ, Tariq N, Sadia S, Ali M, Riazuddin S, **Shaikh RS\***, 2013 7.143/Q1 10  
Ahmed ZM. Genetic Studies of TYRP1 and SLC45A2 in Pakistani  
Patients with Nonsyndromic Oculocutaneous Albinism. **Journal of**  
**Investigative Dermatology 133: 1099-1102**
- 12 Gulnaz A, Sayyed AH, Amin F, Khan AH, Aslam MA, **Shaikh RS**, Ali 2012 2.251/Q4 28  
M. Association of XRCC1, XRCC3 and XPD Genetic polymorphism  
with increased risk of Hepatocellular Carcinoma due to Hepatitis-B and C  
virus. **European Journal of Gastroenterology and Hepatology**  
**25(2):166-179**
- 11 Jaworek TJ, Kausar T, Bell SM, Tariq N, Maqsood M I, Sohail A, Ali M, 2012 3.523/Q2 25  
Iqbal F, Rasool S, Riazuddin S, **Shaikh RS\***, Ahmed ZM. Molecular  
genetic studies and delineation of the oculocutaneous albinism phenotype  
in the Pakistani population. **Orphanet Journal of Rare Diseases 7: 44**
- 10 Khattak RM, Rabib M, Khan Z, Ishaq M, Hameed H, Taqddus A, Faryal 2012 2.05/Q2 18  
M, Durrani S, Gillani QUA, Allahyar R, **Shaikh RS**, Khan MA, Ali M,  
Iqbal F. A comparison of two different techniques for the detection of  
blood parasites, *Theileria annulata*, in cattles from two districts in Khyber  
Pukhtoon Khwa Province, Pakistan. **Parasite 19: 91-95**
- 9 Durrani S, Khan Z, Khattak RM, Andleeb M, Ali M, Hameed H, Taqddas 2012 - 26  
A, Faryal M, Kiran S, Anwar H, Riaz M, Sajid M, **Shaikh RS**, Ali M,  
Iqbal F. A comparison of the presence of *Theileria ovis* by PCR  
amplification of their SSU rRNA gene in small ruminants from two  
provinces of Pakistan. **Asian Pacific Journal of Tropical Disease 2(1):**  
**43-47**
- 8 Umer K, Ali M, Iqbal R, Latif A, Naeem M, Qadir S, Latif M, **Shaikh** 2011 - 9  
**RS**, Iqbal F. Effect of various nutrient combinations on growth and body  
composition of rohu (*Labeo rohita*). **African Journal of Biotechnology**  
**10(62): 13605-13609**
- 7 Javed S, Ali M, Sadia S, Aslam MA, Masood AI, **Shaikh RS**, Sayyed AH. 2011 3.63/Q1 21  
Combined effect of menopause age and genotype on occurrence of breast  
cancer risk in Pakistani population. **Maturitas 69: 377– 382**

6	Iqbal F, Fatima M, Shah Nawaz S, Naeem M, <b>Shaikh RS</b> , Ali M, Shaikh AS, Aktas M, Ali M. A study on the determination of risk factors associated with Babesiosis and prevalence of Babesia Sp. By PCR amplification in Small Ruminants from Southern Punjab Pakistan. <i>Parasite 18: 229-234</i>	2011	2.05/Q2	24
5	Borck G, Rehman AU, Lee K, Pogoda HM, Kakar N, von Ameln S, Grillet N, Hildebrand MS, Ahmed ZM, Nürnberg G, Ansar M, Basit S, Javed Q, Morell RJ, Nasreen N, Shearer AE, Ahmad A, Kahrizi K, <b>Shaikh RS</b> , Ali RA, Khan SN, Goebel I, Meyer NC, Kimberling WJ, Webster JA, Stephan DA, Schiller MR, Bahlo M, Najmabadi H, Gillespie PG, Nürnberg P, Wollnik B, Riazuddin S, Smith RJH, Ahmad W, Müller U, Hammerschmidt M, Friedman TB, Riazuddin S, Leal SM, Ahmad J, Kubisch C. Loss-of-Function Mutations of ILDR1 Cause Autosomal Recessive Hearing Impairment DFNB42. <i>American Journal of Human Genetics 88:127-137</i>	2011	10.502/Q1	104
4	<b>Shaikh RS*</b> , Amir M, Masood AI, Sohail A, Athar HR, Siraj S, Ali M, Anjam MS. Frequency distribution of GSTM1 and GSTT1 null allele in Pakistani population and risk of disease incidence. <i>Environmental Toxicology &amp; Pharmacology 30: 76-79</i>	2010	3.292/Q2	23
3	Riazuddin S, Nazli S, Ahmed ZM, Yang Y, Zulfiqar F, <b>Shaikh RS</b> , Zafar AU, Khan SN, Sabar F, Javid FT, Wilcox ER, Tsilou E, Boger ET, Sellers JR, Belyantseva IA, Riazuddin S, Friedman TB. Mutation spectrum of MYO7A and evaluation of a novel nonsyndromic deafness DFNB2 allele with residual function. <i>Human Mutation 29(4): 502-511</i>	2008	4.124/Q1	96
2	<b>Shaikh RS*</b> , Ramzan K, Nazli S, Sattar S, Khan SN, Riazuddin S, Ahmed ZM, Friedman TB, Riazuddin S. A New Locus for Nonsyndromic Deafness DFNB51 Maps to Chromosome 11p13-p12. <i>American Journal of Medical Genetics 138A: 392-395</i>	2005	2.125/Q3	30
1	Ramzan K, <b>Shaikh RS</b> , Ahmad J, Khan SN, Riazuddin S, Ahmed ZM, Friedman TB, Wilcox ER, Riazuddin S. A new locus for nonsyndromic deafness DFNB49 maps to chromosome 5q12.3-q14.1. <i>Human Genetics 116: 17-22</i>	2005	5.743/Q1	35

## 5. RESEARCH ACHIEVEMENTS

1. Identified three novel loci (*DFNB49*, *DFNB51*, *DFNB56/42*) for Autosomal Recessive Deafness, along with genotype/phenotype correlation for number of mutations in genes causing deafness, especially for *MYO7A*.
2. Working on Molecular Genetics of Oculocutaneous Albinism and related syndromes and had identified number of prevalent novel mutations in Pakistani population existing in different genes known to cause OCA. Moreover, a novel loci OCA5 has also been mapped recently and two more loci on way.
3. Assessing the role of different gene polymorphism of *GSTM1*, *GSTT1*, *GSTO2*, *GSTP1*, *PGR*, *ER*, *XRCC1*, *XRCC3*, *XPD*, *MYTH*, *CYP1A1*, *CY1B1*, *TP53*, *TP21*, *TSHR*, *CTLA4* etc in breast cancer, Graves' disease and HCC predisposition of Pakistani population.
4. Molecular detection and prevalence of various infections in small ruminants and animals of Pakistan.

## 6. SEQUENCES SUBMITTED IN DATABASES

1. Hepatozoon canis isolate Dog1 18S ribosomal RNA gene, 568bp partial sequence (Accession Number: KT955848; 1 Nov, 2015), Iqbal F, Qamar M, Malik MI, **Shaikh RS**, Aktas M
2. Babesia gibsoni isolate dog1 18S ribosomal RNA gene, 482bp partial sequence (Accession Number: KU168833; 8 Feb, 2016), Iqbal F, Qamar M, Malik MI, Mahmood AK, **Shaikh RS**.
3. Hepatozoon canis isolate Pakistan1 18S ribosomal RNA gene, 625bp partial sequence (Accession Number: KU535868; 24 Feb, 2016), Qamar M, Malik MI, **Shaikh RS**, Iqbal F, Aktas M.
4. Hepatozoon canis isolate Pakistan2 18S ribosomal RNA gene, 606bp partial sequence (Accession Number: KU535869; 24 Feb, 2016), Qamar M, Malik MI, **Shaikh RS**, Iqbal F, Aktas M.
5. Hepatozoon canis isolate Pakistan3 18S ribosomal RNA gene, 614bp partial sequence (Accession Number:



- KU535870; 24 Feb, 2016), Qamar M, Malik MI, **Shaikh RS**, Iqbal F, Aktas M.
6. Hepatozoon canis isolate Pakistan4 18S ribosomal RNA gene, 606bp partial sequence (Accession Number: KU535871; 24 Feb, 2016), Qamar M, Malik MI, **Shaikh RS**, Iqbal F, Aktas M.
  7. Anaplasma marginale isolate 3 major surface protein 1b gene, 219bp partial cds (Accession Number: MK792344; 02 Nov, 2019), Asif M, Iqbal F, **Shaikh RS**, Baber M, Ozubek S, Aktas M.
  8. Anaplasma marginale isolate 89 major surface protein 1b gene, 219bp partial cds (Accession Number: MK792345; 02 Nov, 2019), Asif M, Iqbal F, **Shaikh RS**, Baber M, Ozubek S, Aktas M.
  9. Anaplasma marginale isolate 6 major surface protein 1b gene, 219bp partial cds (Accession Number: MK792346; 02 Nov, 2019), Asif M, Iqbal F, **Shaikh RS**, Baber M, Ozubek S, Aktas M.
  10. Theileria annulata isolate 2 cytochrome b gene, 270bp partial cds (Accession Number: MK792347; 02 Nov, 2019), Asif M, Iqbal F, **Shaikh RS**, Baber M, Ozubek S, Aktas M.
  11. Theileria annulata isolate 10 cytochrome b gene, 270bp partial cds (Accession Number: MK792348; 02 Nov, 2019), Asif M, Iqbal F, **Shaikh RS**, Baber M, Ozubek S, Aktas M.
  12. Bacillus cereus strain FAR6 16S ribosomal RNA gene, 680bp partial sequence (Accession Number: MT359254; 25 April 2020), Fatima G, Naqvi STQ, Muhammad SA, **Shaikh RS**.
  13. Bacillus cereus strain FAR2 16S ribosomal RNA gene, 680bp partial sequence. (Accession Number: MT359255; 25 April 2020), Fatima G, Naqvi STQ, Muhammad SA, **Shaikh RS**.
  14. Paenibacillus alvei strain FAR8 16S ribosomal RNA gene, 680bp partial sequence. (Accession Number: MT359860; 25 April 2020), Fatima G, Naqvi STQ, Muhammad SA, **Shaikh RS**.
  15. Aspergillus niger strain FAR14, 18S ribosomal RNA gene, 1216bp partial sequence (Accession Number: MT359864; 25 April 2020), Fatima G, Naqvi STQ, Muhammad SA, **Shaikh RS**.
  16. Theileria ovis isolate 82, small subunit ribosomal RNA gene, 475 bp partial sequence (Accession Number: MT498782; 21 May 2020), Abid K, Irfan M, **Shaikh RS**, Iqbal F, Ozubek S, Aktas M.
  17. Theileria ovis isolate 84, small subunit ribosomal RNA gene, 483 bp partial sequence (Accession Number: MT498783; 21 May 2020), Abid K, Irfan M, **Shaikh RS**, Iqbal F, Ozubek S, Aktas M.
  18. Theileria ovis isolate 89, small subunit ribosomal RNA gene, 482 bp partial sequence (Accession Number: MT498784; 21 May 2020), Abid K, Irfan M, **Shaikh RS**, Iqbal F, Ozubek S, Aktas M.

## 6. RESEARCH GRANTS

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1. Extramural Research Grant from Higher Education Commission, Islamabad, Pakistan worth Pak Rs: 4.1 million on “Molecular Genetics of Oculocutaneous Albinism and Related Syndrome in Pakistani Population”
2. Intramural Research Grant from Bahauddin Zakariya University, Multan, Pakistan, worth Pak Rs: 0.14 million on “Effect of XRCC3 and XPD genetic polymorphisms on Breast Cancer in Pakistani population”.
3. Intramural Research Grant from Bahauddin Zakariya University, Multan, Pakistan, worth Pak Rs: 0.265 million on “Molecular Validation of New Vaccine Candidates Against Human Papilloma Virus Identified Through Reverse Vaccinology Approach” Dated: 11-10-2017.

## 7. ADMINISTRATIVE, TEACHING & RESEARCH EXPERIENCE

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### TEACHING & RESEARCH

1. **15-02-2022 – To date:** Working as Professor of Advance Molecular Biology at Center for Applied Molecular Biology, University of the Punjab, Lahore, Pakistan.
2. **28-01-2021 to 14-02-22:** Worked as Professor of Molecular Biology at Institute of Molecular Biology & Biotechnology, Bahauddin Zakariya University, Multan, Pakistan.
3. **14-08-2015 to 13-02-2017:** Worked with Prof. Haoyi Wang as Post-Doc Fellow at Genome Technology Lab, Institute of Zoology, Chinese Academy of Sciences, Beijing, China.
4. **09-11-2012 to 27-01-2021:** Worked as Associate Professor of Biotechnology at Institute of Molecular Biology & Biotechnology, Bahauddin Zakariya University, Multan, Pakistan.
5. **01-02-2007 to 08-11-2012:** Worked as Assistant Professor of Biotechnology at Institute of Molecular Biology & Biotechnology, Bahauddin Zakariya University, Multan, Pakistan.
6. **Sep 2005 to Sep 2006:** Worked as Lecturer in Faculty of Biotechnology and Informatics, Balochistan University

of Information Technology and Management Sciences, Quetta, Pakistan.

7. **Jan 2001 to Aug 2005:** Research Scholar at Genetic Diseases Lab, National Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan. “Genetic and Molecular Basis of Autosomal Non-syndromic and Syndromic Deafness”

#### **PROFESSIONAL & ADMINISTRATIVE**

1. **Aug 2007 to Feb 2009:** Worked as Teacher Incharge of Institute of Biotechnology, Bahauddin Zakariya University, Multan, Pakistan.
2. **Feb 2007- February 14<sup>th</sup> 2022:** Worked as Member of Departmental Admission, Purchase Committee and Departmental Board of Studies of Institute of Molecular Biology & Biotechnology, Bahauddin Zakariya University, Multan, Pakistan.
3. **March 2009 to Oct 2009:** Worked as Superintendent, Usman Hall at Bahauddin Zakariya University, Multan, Pakistan.
4. **March 17<sup>th</sup> 2011 to May 2<sup>nd</sup> 2012:** Worked as Deputy Director Student Affairs, Bahauddin Zakariya University, Multan, Pakistan.
5. **May 3<sup>rd</sup> 2012 to July 17<sup>th</sup> 2012:** Worked as Deputy Resident Officer, Bahauddin Zakariya University, Multan, Pakistan.
6. **July 18<sup>th</sup> 2012 to August 9<sup>th</sup> 2015:** Worked as Superintendent, Umar Hall, Bahauddin Zakariya University, Multan, Pakistan.
7. **March 7<sup>th</sup> 2018 to March 6<sup>th</sup> 2021:** Member, Board of Studies, Department of Bioinformatics & Biotechnology, Government College University, Faisalabad, Pakistan.
8. **July 29<sup>th</sup> 2018 to July 28<sup>th</sup> 2021:** Expert, Board of Studies, Department of Zoology, The Govt. Sadiq College Women University, Bahawalpur, Pakistan.
9. **December 23<sup>rd</sup> 2019 to Jan 27<sup>th</sup> 2020:** Worked as Resident Officer, Bahauddin Zakariya University, Multan, Pakistan.
10. **February 22<sup>nd</sup> 2021 to February 14<sup>th</sup> 2022:** Worked as Director, Institute of Molecular Biology & Biotechnology, Bahauddin Zakariya University, Multan, Pakistan.
11. **March 04<sup>th</sup> 2022 to Till Date:** Working as Director, Center for Applied Molecular Biology, University of the Punjab, Lahore, Pakistan.

#### **8. ABSTRACTS & POSTERS PRESENTED**

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1. Ahmad J, Ahmed ZM, Riazuddin S, Nazli S, **Shaikh RS**, Ramzan K, Awais M, Khan SN, Riazuddin S. Genotype-phenotype correlation in DFNB23 and USH1F at 2<sup>nd</sup> International Symposium on Biotechnology Jan. 19-21, 2004 organized by Institute of Biotechnology and Genetic Engineering University of Sindh, Jamshoro and Nuclear Institute of agriculture (NIA) Tando Jam, Pakistan.
2. Khan SN, Ramzan K, **Shaikh RS**, Ahmad J, Nazli S, and Riazuddin S. Genetic of Hereditary Hearing Impairment in Pakistan at 17<sup>th</sup> International Biennial Conference of Pakistan Association and Scientific Conference of Pediatric Association of SAARC countries Feb 19-22, 2004 organized by Pakistan Pediatric Association Punjab.
3. Khan SN, Nazli S, **Shaikh RS**, Ramzan K, Ahmad J, Riazuddin S, Ahmed ZM, Riazuddin S. Molecular Studies of Hereditary Hearing Impairment at 1<sup>st</sup> National Conference on Health Biotechnology Jan. 27-28, 2005 at University of Health Sciences, organized by National Commission on Biotechnology, Pakistan.
4. **Shaikh RS**, Nazli S, Riazuddin S, Ramzan K, Ahmad J, Ahmed ZM, Khan SN and Riazuddin S. Genetic Heterogeneity of Usher Syndrome Type 1 in Pakistan at 1<sup>st</sup> National Conference on Health Biotechnology, Jan 27-28, 2005 at University of Health Sciences, organized by National Commission on Biotechnology, Pakistan.
5. Ramzan K, **Shaikh RS**, Ahmad J, Khan SN, Riazuddin S, Ahmed ZM, Friedman TB, Wilcox ER, and Riazuddin S. A New Locus for Nonsyndromic Deafness DFNB49 maps to Chromosome 5q12.3-q14.1 at 1<sup>st</sup> National Conference on Health Biotechnology, Jan 27-28, 2005 at University of Health Sciences, organized by National Commission on Biotechnology, Pakistan.
6. Ramzan K, **Shaikh RS**, Ahmad J, Khan SN, Riazuddin S, Ahmed ZM, Friedman TB, Wilcox ER, Riazuddin S. A new locus for nonsyndromic deafness DFNB49 maps to chromosome 5q12.3-q14.1 at symposium named The Genetics of Developmental Disabilities: Diagnosis, Treatment, and Prevention Nov 15-16, 2005 organized by King



Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia.

7. Khan SN, Nazli S, Ahmed J, Ramzan K, **Shaikh RS**, Riazuddin S, Ahmed ZM, Riazuddin S. Genetic and Molecular Basis of Hearing Impairment at 4<sup>th</sup> International Symposium on Genetic Engineering and Biotechnology Dec 4-8, 2005 organized by Centre for Molecular Genetics, University of Karachi, Karachi, Pakistan.
8. **Shaikh RS**, Ramzan K, Nazli S, Sattar S, Khan SN, Riazuddin S, Ahmed ZM, Friedman TB, Riazuddin S. Poster presentation of A New Locus for Nonsyndromic Deafness DFNB51 Maps to Chromosome 11p13-p12 at 4<sup>th</sup> International Symposium on Genetic Engineering and Biotechnology Dec 4-8, 2005 organized by Centre for Molecular Genetics, University of Karachi, Karachi, Pakistan.
9. **Shaikh RS**, Ramzan K, Nazli S, Sattar S, Khan SN, Riazuddin S, Ahmed ZM, Friedman TB, Riazuddin S. A New Locus for Nonsyndromic Deafness DFNB51 Maps to Chromosome 11p13-p12 at 1<sup>st</sup> International Conference on Biotechnology & Informatics April 10-12, 2006 organized by Faculty of Biotechnology & Informatics, Balochistan University of Information Technology & Management Sciences, Quetta, Pakistan.
10. **Shaikh RS**, Sohail A, Sadia S, Aslam MA, Anjam S, Iqbal F, Ali M, Assessment of GSTM1 and GSTT1 Null Allele Role in Relation to Breast Cancer in Pakistani population at 3<sup>rd</sup> International Symposium-Cum-Training Course on Molecular Medicine and Drug Research (MMDR-3) held at Karachi, Pakistan, from January 3 - 6, 2011.
11. Saqib F, **Shaikh RS**, Noll T, Gündüz D, Rohrbach S, Aslam M. Blepharis edulis extract protects against reperfusion-induced myocardial oedema in isolated rat hearts and permeability of cultured endothelial cells and inhibits platelet aggregation at International Conference of Physiology, Germany, July 2012.
12. Chiang PW, Spector E, Ali F, Asim M, Ali M, **ShaikhRS**. Mutation analysis of Oculocutaneous Albinism Patients from Consanguineous Pakistani families at Annual Clinical Genetics Meeting March 16-20, 2011, Vancouver, British Columbia, Canada.
13. Ali M, Sadia S, Sohail A, Asim M, **Shaikh RS** (2013). Role of Progesterone receptors polymorphism in the mammary tumor development: a study of southern Punjab (Pakistan) population. In 33<sup>rd</sup> Pakistan Congress of Zoology (International) Islamabad, Pakistan, April 2-4: CBGP-63.
14. Kausar T, Jaworek TJ, Bell S, Tariq N, Maqsood MI, Sohail A, Iqbal F, Rasool S, Riazuddin S, Ali M, Ahmed ZM, **Shaikh RS** (2013). Oculocutaneous Albinism: Molecular Genetic Studies of Nonsyndromic phenotype in the Pakistani population. In 33<sup>rd</sup> Pakistan Congress of Zoology (International) Islamabad, Pakistan, April 2-4: CBGP-69
15. Tariq N, Kausar T, Jaworek TJ, Sadia S, Ali M, Ahmed ZM, **Shaikh RS** (2013). Genetic studies of TYRP1 and SLC45A2 in Pakistani patients with nonsyndromic Oculocutaneous albinism. In 33<sup>rd</sup> Pakistan Congress of Zoology (International) Islamabad, Pakistan, April 2-4: CBGP-70
16. **Shaikh RS**, Kausar T, Tariq N, Ahmed ZM, Ali M (2013). Mapping of a Novel Non Syndromic OCA5 Locus to Chromosome 4q24. In 33<sup>rd</sup> Pakistan Congress of Zoology (International) Islamabad, Pakistan, April 2-4: CBGP-73
17. Shahzad M, Yousaf S, Kausar T, Waryah YM, Gul H, Mehmood U, Tariq N, Khan MA, University of Washington Center for Mendelian Genomics, Ali M, Khan MA, Waryah AM, Riazuddin S, **Shaikh RS**, Ahmed ZM (2015) Molecular genetic studies of the oculocutaneous albinism phenotype in the Pakistani population presented in American Society of Human Genetics Annual Meeting, Baltimore, Maryland, 6-10 October, 2015.
18. Yousaf S, Shahzad M, Campos JS, Tariq N, Serrano CH, Yousaf R, Cervantes CJ, Waryah YM, Kausar T, Ali M, Waryah AM, Riazuddin S, **Shaikh RS**, Garcia-Borrón JC, Ahmed ZM (2015) Genetic and Functional studies of genes associated with hypopigmentation disorders in human presented in American Society of Human Genetics Annual Meeting, Baltimore, Maryland, 6-10 October, 2015.
19. Yousaf S, **ShaikhRS**, Iqbal R, RiazuddinS, Ahmed ZM. Variable penetrance of Fraser syndrome-associated FREM2 allele and candidate genetic modifier. Annual Meeting of the Association for Research in Vision & Ophthalmology (ARVO), Baltimore, Maryland, 7-11 May, 2017
20. **Shaikh RS**, Shahzad M, Yousaf S, Waryah YM, Gul H, Kausar T, Tariq N, Mehmood U, Ali M, Khan MA, Waryah AM, Riazuddin S, Ahmed ZM. Nonsyndromic OCA Genes Variants in Pakistani Population. Sciences for Betterment of Humanity held at The Government Sadiq College Women University, Bahawalpur on 04-06 May, 2017.
21. Manzoor H, Rehan F, Saeed Q, Rasool L, **Shaikh RS** & Rasul S. Comparative study of solvent leaf extract and silver nanoparticles of Aloe vera as bioactive compound against respiratory tract pathogens (Oral Communication: 2<sup>nd</sup> International Conference on Applied Zoology (ICAZ-2019), 19-20, December 2019, Government College University, Faisalabad, Pakistan).
22. Keynote Lecture on “Molecular Genetics of Oculocutaneous Albinism in Pakistan” at 4<sup>th</sup> National Symposium on Advances in Biotechnology organized by Department of Bioinformatics & Biotechnology, GCUF, Faisalabad. March 2-3, 2022.

## ***9. CONFERENCE, WORKSHOP & SYMPOSIA ORGANIZED***

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1. 1<sup>st</sup> International Conference on Biotechnology & Informatics organized by Faculty of Biotechnology & Informatics, Balochistan University of Information Technology & Management Sciences, Quetta, Pakistan. April 10-12, 2006.
2. Project Formulation Workshop held by Pakistan Science Foundation at Institute of Molecular Biology & Biotechnology, Bahauddin Zakariya University, Multan on 20-21 June, 2012.

## ***10. AWARDS & FELLOWSHIPS***

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- ❖ Bronze Medal in B.Pharmacy (2000), Bahuddin Zakariya University, Pakistan.
- ❖ CEMB-PhD Research Fellow (Jan 2002- Jan 2003)
- ❖ Indigenous PhD scholarship from HEC, Pakistan. (Feb 2003- Aug 2005)
- ❖ HEC approved PhD Supervisor (2007)
- ❖ Research Productivity Award (2014-15) from Pakistan Council of Science & Technology
- ❖ CAS Presidential International Fellowship Initiative Award for Post-Doctoral Research (2015)

## ***11. PROFESSIONAL TRAININGS***

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1. “1<sup>st</sup> National Workshop on Genetic Engineering Techniques” at Hazara University, Manshera, NWFP, Pakistan from Dec 1st- 3rd 2004.
2. “International Workshop on the Use of Bioinformatics in Genomic Research” at COMSTECH Secretariat, Islamabad, Pakistan from Aug 19th – Sep 02nd 2006.
3. 2nd International Training Workshop on DNA Microarray for Gene Expression & Training Workshop on Biosafety in Biomedical Research at Center of Excellence in Molecular Biology, Punjab University, Lahore on 7-11 March, 2011.
4. SNP Genotyping: Strategies Applications in Human Genetics held at University Institute of Biochemistry and Biotechnology, PMAS Arid Agriculture University, Rawalpindi on 20-22 April, 2011.
5. Project Formulation Workshop held by Pakistan Science Foundation at Bahauddin Zakariya University, Multan on 20-21 June, 2012.

## ***12. SYMPOSIA AND CONFERENCES ATTENDED***

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1. 2nd International Symposium on Biotechnology at University of Sindh, Jamshoro, organized by Institute of Biotechnology and Genetic Engineering University of Sindh, Jamshoro and Nuclear Institute of Agriculture (NIA) Tando Jam, Pakistan. Jan. 21-23, 2004.
2. 17th International Biennial Conference of Pakistan Association & Scientific Conference of Pediatric Association of SAARC Countries organized by Pakistan Pediatric Association Punjab at Pearl Continental, Lahore, Pakistan. Feb.19-22, 2004.
3. A Symposium/ Workshop on the application of Molecular Biological research in agriculture and health at National Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan. March 27-31, 2004.
4. First National Conference on Health Biotechnology organized by National Commission on Biotechnology at University of Health Sciences, Lahore, Pakistan. Jan. 27-28, 2005.
5. 4th International Symposium on Genetic Engineering and Biotechnology organized by Centre for Molecular Genetics, University of Karachi, Karachi, Pakistan. Dec 4-8, 2005.
6. 1<sup>st</sup> International Conference on Biotechnology & Informatics organized by Faculty of Biotechnology & Informatics, Balochistan University of Information Technology & Management Sciences, Quetta, Pakistan. April 10-12, 2006.
7. 4<sup>th</sup> National Symposium on Advances in Biotechnology organized by Department of Bioinformatics & Biotechnology, GCUF, Faisalabad. March 2-3, 2022.

### 13. STUDENTS SUPERVISED/CO-SUPERVISED

#### PhD

1. Molecular and Genetic Insights on Oculocutaneous Albinism by **Tasleem Kausar** under supervision of **Dr. Rehan Sadiq Shaikh** & **Dr. Zubair M Ahmed** (PhD Completed from IMBB, BZU, vide notification no. Ph.D/214 dated: 10-07-2014 & Viva on 20-06-2014).
2. Exploration of Molecular Machinery Regulating Congenital Albinism in Humans by **Nabeela Tariq** under supervision of **Dr. Rehan Sadiq Shaikh** & **Dr. Muhamamd Ali** (PhD Completed from IMBB, BZU, vide notification no. Ph.D/115 dated: 03-08-2015 and Viva on 13-07-2015).
3. Comparative Study on Prevalence and Hematobiochemical Profiling of Theileria Annulata from Blood Samples of Southern Punjab Cattles by **Zaka Saeed** under supervision of **Dr. Rehan Sadiq Shaikh**, **Dr. Furhan Iqbal** & **Dr. Muhammad Mazhar Ayaaz** (PhD Completed from IMBB, BZU, vide notification no. Ph.D/171 dated: 09-06-2016 and Viva on 09-05-2016).
4. Genetic & Molecular Evaluations of Pigmentation Disorders by **Saira Yousaf** under supervision of **Dr. Rehan Sadiq Shaikh**, **Dr. Muhamamd Ali** & **Dr. Zubair M Ahmed** (PhD Completed from IMBB, BZU, vide notification no. Ph.D/546 dated: 24-10-2017).
5. Study of Genetic Variants for Inherited Ocular Disorder in Sindhi Inbred Pedigrees by **Yar Muahmmad Waryah** under supervision of **Dr. Rehan Sadiq Shaikh** & **Dr. Muhammad Suleman Pirzado** (PhD Completed from LUMHS, Jamshoro after Viva on 24-01-2019).
6. Molecular & Genetic Evaluations of Hearing Loss by **Saba Zafar** under supervision of **Dr. Rehan Sadiq Shaikh**, **Dr. Zubair M Ahmed** & **Dr. Hamid Manzoor** (PhD Completed from IMBB, BZU vide notification no. Ph.D/822 dated: 08-04-2021 and Viva on 22-03-2021).
7. Molecular Genetics of Inherited Ocular Disorder in Families from Southern Punjab, Pakistan by **Zureesha Sajid** under supervision of **Dr. Rehan Sadiq Shaikh**, **Dr. Zubair M Ahmed** & **Dr. Sumaira Rasul** (PhD Completed from IMBB, BZU vide notification no. Ph.D/882 dated: 29-09-2021 and Viva on 10-09-2021).
8. Molecular Validation of New Vaccine Candidates Against Human Papilloma Virus Identified by Reverse Vaccinology by **Mehreen Ismail** under supervision of **Dr. Rehan Sadiq Shaikh** & **Dr. Syed Aun Muhammad** (PhD Thesis Submitted and Awaiting Viva at IMBB, BZU).
9. Molecular Characterization and Genetic Studies of Otitis Media in Pakistan by **Ayesha Yousaf** under supervision of **Dr. Rehan Sadiq Shaikh** & **Dr. Zubair M Ahmed** (PhD Thesis Submitted & Under Review, Registration vide notification Acad/Scholar's File/585, dated: 04-04-2016 at IMBB, BZU)
10. Designing and *In Vivo* Studies of Potential CD4+ and CD8+ Cell Epitopes for Therapeutic Liver Cancer Vaccine Development Based on System-Level Immunoinformatics Approaches by **Sidra Zafar** under supervision of **Dr. Syed Aun Muhammad** & **Dr. Rehan Sadiq Shaikh** (PhD Registration vide notification Acad/Scholars File/4300, dated: 15-12-2022 at IMBB, BZU).

#### M.Phil

1. Genetic and Molecular Analysis of Ocular Albinism by **Fabeem Ali**, Zoology (2006-08, Degree Awarded)
2. Assessment of the Genetic Polymorphism in *GSTP1* & *GSTO2* (Phase-II Metabolic Enzymes) on Breast Cancer Risk by **Nazia Kanwal**, Biotechnology (2008-10, Degree Awarded)
3. Relationship of Functional Polymorphisms in Progesterone Receptor with Mammary Tumor Risk by **Sobia Sadia**, Biotechnology (2008-10, Degree Awarded)
4. Mutational Analysis of Genes Involved in Skin & Eye Pigmentation Disorder by **Muhammad Imran Maqsood** (2008-10, Degree Awarded)
5. Relationship of *XRCC3* and *XPD* gene polymorphisms to increased risk of Breast Tumor by **Muhammad Asim Bhatti** (2009-11, Degree Awarded)
6. Screening of Breast Cancer Patients for Genetic Variants of *XRCC1* Gene by **Nadia Rabat** (2009-11, Degree Awarded)
7. Assessing the role of functional polymorphism of *APOB* gene in Heart Diseases by **Lubaba Rubab** (2009-11, Degree Awarded)
8. Influence of *CYP1A1* gene polymorphism on Breast cancer Predisposition by **Nida Altaf** (2010-12, Degree Awarded)
9. Investigation of *TSHR* & *CTLA4* polymorphism effect in patients with Graves Diseases & Graves Ophthalmopathy by **Hira Fatima** (2010-12, Degree Awarded)
10. Significance of *TP21* (Ser31Arg) & *TP53* (Arg72Pro) polymorphism in Breast cancer by **Aneela Yousaf** (2010-12, Degree Awarded)
11. Implication of *MUTYH* & *TP53* insertion polymorphism in Pakistani Mammary Tumor Patients by **Aniqa**

- Arshad* (2010-12, Degree Awarded)
12. Relationship of *VDR* Gene Diversity with Increased Risk of Pulmonary Tuberculosis by *Muhammad Irfan* (2011-13, Degree Awarded)
  13. A Marker Polymorphism in *DGAT1* & *GHR* for Estimating Milk Yield & Content Potential in Prevalent Pakistani Cows by *Aafia Rabbani* (2011-13, Degree Awarded)
  14. Factor V Leiden, Prothrombin and *MTHFR* gene variants role in Pakistani Pre-Eclampsia Patients by *Nimrah Zaboora* (2011-13, Degree Awarded)
  15. Risk Potential of *EPHA2* Single Nucleotide Polymorphisms with Age Related Cataract in Pakistan by *Sana Aslam* (2011-13, Degree Awarded)
  16. Molecular Analysis of Transformed Sugar Cane (*Saccharum officinarum* L.) with Herbicide & Insecticide Resistant Gene (*cry1Ac*, *cry2a* and *GTG*) by *Ibtisama Umer* (2011-13, Degree Awarded)
  17. Implication of *GSTT1* & *GSTM1* Deletion Polymorphism in Head and Neck Cancer: A Case-Control Study by *Zureesha Sajid* (2012-14, Degree Awarded)
  18. Association of *FABP2* & *OLR1* Single Nucleotide Polymorphisms with Myocardial Infarction by *Khunsa Khurshid* (2012-14, Degree Awarded)
  19. Relationship of *PCSK9* & *APOE* Variants with Myocardial Infarction in Southern Punjab Population of Pakistan by *Madiba Fatima* (2012-14, Degree Awarded)
  20. Role of *EZRIN* Polymorphisms in Age Related Cataract: A Case-Control Study in Southern Punjab, Pakistan by *Sobia Durrani* (2012-14, Degree Awarded)
  21. Assessment of Pre-Eclampsia Risk Due to Endoplasmic Reticulum Aminopeptidase-2 (*ERAP2*) Gene Variants by *Hajra* (2012-14, Degree Awarded)
  22. Risk Potential of *GJA8* Gene Variants in Causing Age-Related Cataract by *Saba Zafar* (2012-14, Degree Awarded)
  23. Assessing the Role of *CYP1A1* Variants in Head & Neck Cancer: A Tetra-Arms PCR Based Investigation by *Syeda Zabira Abbas* (2012-14, Degree Awarded)
  24. Hematological, Biochemical Profiling and Molecular Detection of *Anaplasma Marginale* In Cattles by *Shabbaz Ahmad* (2012-14, Degree Awarded)
  25. A PCR-RFLP Based Study for Detection of *Anaplasma sp.* In Cholistan Breed of Cows from Bahawalpur District by *Malik Fiaz Hussain* (2012-14, Degree Awarded)
  26. Identification of KHV Resistance in Breed Stocks of Common Carp (*Cyprinus Carpio*) Using Molecular Markers by *Rushda Tasleem* (2013-15, Degree Awarded)
  27. Multiplex PCR Based Study to Assess the Role of *GSTT1* & *GSTM1* Deletion Polymorphisms in Age Related Cataract by *Aisha Zulfiqar* (2013-15, Degree Awarded)
  28. Prevalence & Identification of *Babesia* and *Ehrlichia Canis* In Dogs (*Canis Lupus Familiaris*) by *Muhammad Irfan Malik* (2013-15, Degree Awarded)
  29. Molecular Detection of *Anaplasma sp.*, *Hepatozoon sp.*, and *Mycoplasma sp.* In dogs (*Canis Lupus Familiaris*) by *Mubamamd Qamar* (2013-15, Degree Awarded)
  30. Association of Immunogenic Genes Variants with Susceptibility to Head, Neck & Cervical Cancer by *Ayesha Siddique* (2016-18, Degree Awarded)
  31. Relationship of Apoptotic Genes Polymorphisms with Higher Risk of Head, Neck & Cervical Cancer by *Kiran Nawaz* (2016-18, Degree Awarded)
  32. Evaluation of Circadian Cycle Genes Polymorphisms Role in Obstructive Sleep Apnea Syndrome by *Farhan Rao* (2016-18, Degree Awarded)
  33. Correlation of Inflammatory Response Genes Variants with Obstructive Sleep Apnea Syndrome: A Case-Control Study by *Hanya Ilyas* (2016-18, Degree Awarded)
  34. Assessment of *CRYAA* Gene Polymorphisms with Susceptibility to Age Related Cataract by *Aniqa Mubashir* (2016-18, Degree Awarded)
  35. Study of *LIPG* and *LIPC* gene variant in Human Coronary Heart Disease by *Momal Tariq* (2017-19, Degree Awarded)
  36. Association of *RBP4* & *STRA6* Gene Polymorphisms with the Increased Risk of Type 2 Diabetes in Southern Punjab Population (Pakistan) by *Hafiza Sobia Khan* (2017-19, Degree Awarded)
  37. Population Based Study of Scavenger Receptor Class B Type 1 SNPs in Human Ischemic Heart Disease by *Mashaal Huma Arif* (2017-19, Degree Awarded)
  38. Isolation, Identification and Characterization of Organic Acid Producing Rhizobacteria from Local Plants by *Rabia Hussain* (2017-19, Degree Awarded)

39. Simultaneous Detection of Anaplasma Marginale & Theileria Annulata in Blood Samples of Horse and Donkey Collected from South Punjab, Pakistan by *Muhammad Asif* (2017-19, Degree Awarded)
40. PCR Amplification of MSP1b Surface Protein to Detect Anaplasma marginale in Sheep Blood Samples by *Sundas Bukhari* (2018-20, Degree Awarded)
41. Molecular Detection of Theileria Ovis in Blood Samples of Sheep Collected from Layyah District, Pakistan by *Kainat Abid* (2018-20, Degree Awarded)
42. Production and Characterization of Antibacterial Metabolites Isolated from Soil Microbial Species by *Ghulam Fatima* (2018-20, Degree Awarded)
43. Characterization and Evaluation of Biological Activities of Iron Nanoparticles Synthesized from Penicillium Species by *Huria Hanif* (2018-21, Degree Awarded)
44. Variation Analysis of IFN- $\gamma$  and IL6 Gene Modulate Susceptibility Towards Pulmonary Tuberculosis by *Mahreen Shafat* (2019-21, Degree Awarded)
45. Susceptibility Assessment of Pulmonary Tuberculosis with Genetic Variants of P2X7 and SULF1 Gene in Pakistani Population by *Muhammad Arif Saleem* (2019-21, Degree Awarded)
46. An Approach Towards Personalized Medicine: Association of OCT2 and OCT3 Genes Variants with Metformin by *Mabeen Aslam* (2020-22, Research in Progress)
47. Association of Organic Cation Transporter 1 (OCT1) Gene SNPs with Metformin in Healthy Individuals: A Step Towards Tailored Medicine by *Iqra Rafique* (2020-22, Research in Progress)
48. Genetic Variation of MATE-1 and MATE-2 Genes and Their Role in Pharmacogenetics of Metformin by *Ifra Mukhtar* (2020-22, Research in Progress)
49. Role of DPD and MTHFR Genes SNPs with Pharmacokinetics of 5-Fluorouracil in Breast Cancer Patients by *Mehwish Sultana* (2020-22, Research in Progress)
50. Pharmacogenomic Studies of 5-FU in Association to DPD and TP53 Gene Polymorphisms in Breast Cancer Patients by *Ayesha Batool Alam* (2020-22, Research in Progress)

#### **M.Sc**

1. Characterization of Phylogenetic Relationship among Pakistani chats (Saxicola genus) through RAPD by *M. Imran Maqsood*, Biotechnology (2006-08, Degree Awarded)
2. To study genetic diversity of resident prinia species through RAPD analysis by *Sadia Abid Hassan*, Biotechnology (2006-08, Degree Awarded)
3. Linkage studies of Oculocutaneous Albinism for known loci by *Muhammad Asim*, Biotechnology (2007-09, Degree Awarded)
4. Genetic and Molecular Analysis of Families with Oculocutaneous Albinism by *Muhammad Sajid*, Biotechnology (2007-09, Degree Awarded)
5. Distribution of *GSTT1* and *GSTM1* null allele in Pakistani Population from Southern Punjab by *Amir Abdul Hakim*, Biotechnology (2007-09, Degree Awarded)

#### **14. PROFESSIONAL MEMBERSHIPS**

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- Registered Pharmacist, Punjab Pharmacy Council, Lahore, Pakistan
- Member, Pakistan Pharmacist Association, Lahore
- Member, Biotechnology Society of Pakistan, NIBGE, Faisalabad
- Member Editorial Board of Universal Journal of Medical Science

#### **15. REFERENCES**

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