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Research Interests:

Evolution of the present-day human brain in comparison to that of closely related primates and archaic humans (Neanderthals and Denisovans), identifying signals of natural selection on important genetic loci that navigate developmental and functional restrictions to either limit or channel the human brain capacity.

Selected Publications:

1. **Raza RZ***, Abbasi SW. An Evolutionary Insight Into the Heterogeneous Severity Pattern of the SARS-CoV-2 Infection. *Frontiers in genetics*. 2022:553.
2. Hussain I, **Raza RZ**, Ali S, Abrar M, Abbasi AA. Molecular signatures of selection on the human GLI3 associated central nervous system specific enhancers. *Development Genes and Evolution*. 2021 Mar;231(1):21-32.
3. **Raza RZ**, Ma L, Zhang Z, Bao Y, Abbasi AA. Selection trends on nasal-associated SNP variants across human populations. *Meta Gene*. 2021 Jun 1;28:100872.
4. Seemab S, Pervaiz N, **Zehra R**, Anwar S, Bao Y, Abbasi AA. Molecular evolutionary and structural analysis of familial exudative vitreoretinopathy associated FZD4 gene. *BMC evolutionary biology*. 2019 Dec;19(1):1-0.
5. Pervaiz N, Shakeel N, Qasim A, **Zehra R**, Anwar S, Rana N, Xue Y, Zhang Z, Bao Y, Abbasi AA. Evolutionary history of the human multigene families reveals widespread gene duplications throughout the history of animals. *BMC evolutionary biology*. 2019 Dec;19(1):1-1.
6. Ma L, Cao J, Liu L, Li Z, Shireen H, Pervaiz N, Batool F, **Raza RZ**, Zou D, Bao Y, Abbasi AA. Community curation and expert curation of human long noncoding RNAs with LncRNAWiki and LncBook. *Current Protocols in Bioinformatics*. 2019 Sep;67(1):e82.

7. **Zehra R**, Abbasi AA. Homo sapiens-specific binding site variants within brain exclusive enhancers are subject to accelerated divergence across human population. *Genome biology and evolution*. 2018 Mar;10(3):956-66.

Google Scholar: <https://scholar.google.com.pk/citations?user=3l13QYwAAAAJ&hl=en>

Projects

S.NO	Title	Funding Agency	Amount in Million PKRs	Status
1	Evolutionary Analysis of Schizophrenia-associated Mutations bearing Enhancers on Population Susceptibility	HEC-SRGP	0.5	Completed (2022)