

Dr. Humaira Ayub

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<https://scholar.google.com.pk/citations?user=PdVRbEgAAAAJ&hl=en>

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Education

- PhD (2015): Biosciences, COMSATS University Islamabad. Thesis title: “Genetic Study of Multifactorial Eye Disorders in Pakistan”.
- MS. (2009): Biosciences, COMSATS University Islamabad. Thesis title: Study of APOC3, eNOS & HSP70 Polymorphisms in Glaucoma & Normal Population of Pakistan

Professional Experience

1: Teaching Experience:

- **Assistant professor** in the Department of Biomedical Sciences, PAF-IAST (**March 2020 to date**).
- **Assistant Professor** in Department of Biotechnology, COMSATS University Islamabad, Abbottabad Campus (**Feb 2016 to March 2020**).

2: Research Supervision Experience:

- 02 PhD, 02 MS and 04 BS scholars are currently being Supervised at Department of Biomedical Sciences, PAF-IAST.
- Have successfully supervised 05MS, 10 BS research scholars at Department of Biotechnology, COMSATS University Islamabad, Abbottabad Campus.

Projects

- HEC-NRPU 2021 – 2024 Establishment of DNA Based Pre-Symptomatic Diagnostic methods for Glaucoma.
- SPCAI-RG-1 2021 – 2022 Sight for blind-spot: A smart rehabilitation training protocol for individuals with
- Retinal Degenerative Diseases.

Research Publications

21 International Publications in ISI indexed journals, impact factor of 100+, citations **762**, *h*-index **13**

- Molecular Mechanisms of Complement System Proteins and Matrix Metalloproteinases in the Pathogenesis of Age-Related Macular Degeneration. N Mansoor, F Wahid, M Azam, K Shah, AI den Hollander, R Qamar, ... H Ayub. *Current molecular medicine* 2019;19 (10), 705-718.
- The protective variant rs7173049 at LOXL1 locus impacts on retinoic acid signaling pathway in pseudoexfoliation syndrome. D Berner, U Hoja, M Zenkel, JJ Ross, S Uebe, D Paoli, P Frezzotti, ...H Ayub...*Human molecular genetics* 2019;28 (15), 2531-2548.
- Association of rs10490924 in ARMS2/HTRA1 with age-related macular degeneration in the Pakistani population. H Ayub, S Shafique, A Azam, I Muslim, NA Qazi, F Akhtar, MA Khan, ...*Annals of human genetics* 2019: <https://doi.org/10.1111/ahg.12311>.
- Genetic association study of exfoliation syndrome identifies a protective rare variant at LOXL1 and five new susceptibility loci. T Aung, M Ozaki, MC Lee, U Schlötzer-Schrehardt, G Thorleifsson, ...H Ayub... *Nature genetics* 2017;49 (7), 993.
- Genome-wide association study identifies five new susceptibility loci for primary angle closure glaucoma. CC Khor, T Do, H Jia, M Nakano, R George, K Abu Amero, R Duvesh, ...H Ayub... *Nature genetics* 2016;48 (5), 556.
- Identification of novel CYP1B1 gene mutations in patients with primary congenital and primary open-angle glaucoma. S Micheal, H Ayub, SN Zafar, B Bakker, M Ali, F Akhtar, F Islam, MI Khan, ...*Clinical & experimental ophthalmology* 2015;43 (1), 31-39.