CURRICULUM VITAE

Dr. NOOR HASSAN

Assistant Professor (TTS)
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Professional Summary

Experienced academic with 19 years of teaching, research, and administrative expertise in biochemistry, biotechnology, public health and Food safety. Specializes in structural and biochemical characterization of industrially important proteins, protein structure prediction through homology modelling. Research interests encompasses a range of fields, including epidemiology, clinical biomarker identification an food sciences. Committed to curriculum development, student mentorship, and collaborative research.

Academic Qualifications

- **Post Doc**. Biotechnology, (**2019**) Stockholm University Sweden. ***Engineering of Human glutathione transferase (GST) and prodrug therapy targeting tumor cells***.
- **Ph.D**. in Biotechnology (**2015**), KTH Royal Institute of Technology School of ***Biotechnology*** Division of Industrial Biotechnology Stockholm Sweden., ***Biochemical and structural characterization of carbohydrate-active enzymes of biotechnological importance***.
- **Licentiate** (MS) Biotechnology, (**2014**) KTH Royal Institute of Technology School of Biotechnology Division of Industrial Biotechnology Stockholm Sweden. ***Biochemical and structural characterization of two thermo-stable carbohydrate-active enzymes with potential in biotechnological applications.***
- **M.Sc.** Biochemistry, (2003) Institute of Biochemistry University of Balochistan, Quetta, Pakistan**.**

Academic Positions

- **Assistant Professor** on **Tenure Track System (TTS) at** Biochemistry, Institute of Biochemistry University of Balochistan, Quetta, ***Pakistan.***
- **Lecturer** Biochemistry, Institute of Biochemistry University of Balochistan, Quetta, Pakistan**.**

Research Interests

- Structural and biochemical characterization of industrially important proteins.
- Designing industrial enzymes through rational design.
- Computational modeling of protein structures using homology-based prediction methods.
- Structure prediction of proteins through advanced homology modeling techniques.
- In silico prediction and analysis of protein structures via homology modeling.
- Epidemiological studies and diagnostic marker identification
- Food quality and safety assessment through adulteration detection techniques.

Teaching Portfolio

Undergraduate Courses: Enzymology, Immunology

Postgraduate Courses: Membrane receptors structure function relationship

Research Supervision/Co-supervision: MPhil (05) and Ph.D. (1)

Selected Publications

1. Zing Ziong, Syed Ashraf Uddin, Sob ia Munir, Nicole Cesarato Holger Thiele Noor Hassan, Surgeet Kumar, Fazal Ur Rehman, Muhammad Naeem, Abdul Wali, Sulman Basit, F. Buket Basmanav, Muhammad Ayub and Regina C Betz. **A TMC8 splice variant causes epidermodysplasia verruciformis in a Pakistani family**. Clinical and Experimental Dermatology 2023;48(4):434-437.

2. Dr Ghazanfar Ali, Sadia Sadia, Ain Batool, Zahid Azeem, Naheed Bashir, Syed Kazmi, Zia Rehman, Zeeshan Anjum, Fazal Rehman, Abdul Wali, Kafaitullah Khan, Nasib Zaman, Muhammad Ayub, Muhammad Sajid, and **Noor Hassan**. **A Recurrent Nonsense Mutation in NECTIN4 Underlying Ectodermal Dysplasia-Syndactyly Syndrome with a Novel Phenotype in a Consanguineous Kashmiri Family**. Genetic Research 2023: https://doi.org/10.1155/2023/9999660.
3. Iqra Arshad, Muhammad Ayub, Attiq-urRehman Kakar, **Noor Hassan**, Saeeda Khanam,Rehana Kamal,Atta Muhammad. **Comparative study of total Phenolics and antioxidants in Astragalus stocksii by using methanol, ethanol and acetone and to evaluate its anti-inflammatory activity**. Al- Nahrain Journal of Science ANJS, 2021; 24(3)16-22.
4. Ghulam M. Khan1, **Noor Hassan**, Niamatullah Khan, Muhammad Humayun, Kafaitullah Khan, Samira Khaliq, Fazal U. Rehman, Sheikh Ahmed, Khadim Shah, Sher A. Khan, Noor Muhammad, Abdul Wali, Saadullah Khan, Sulman Basit and Muhammad Ayub. **Biallelic mutations in the LPAR6 gene causing autosomal recessive wooly hair/hypotrichosis phenotype in five Pakistani families. International Journal of Dermatology 2019; 58: 946-952.**
5. **Hassan**, Noor & Geiger, Barbara & Gandini, Rosaria & Patel, B. & Kittl, Roman & Haltrich, Dietmar & Nguyen, Thu-Ha & Divne, Christina & Tan, Tien. **Engineering a thermostable Halothermothrix orenii β-glucosidase for improved galacto-oligosaccharide synthesis. Applied Microbiology and Biotechnology. 2016;100:3533-3543.**
6. **Hassan, Noor** & Kori, Lokesh & Gandini, Rosaria & Patel, B. & Divne, Christina & Tan, Tien. **High-resolution crystal structure of a** polyextreme **GH43 glycosidase from Halothermothrix orenii with a-L-arabinofuranosidase activity. Acta Crystallographica Section F Structural Biology and Crystallization Communications. 2015; 71: 338–345.**
7. **Hassan, N**., Nguyen, T.H., Intanon, M., Kori, L.D., Patel, B.K., Haltrich, D., Divne, C. & Tan, T.C. **Biochemical and structural characterization of a** thermostable **beta- glucosidase from Halothermothrix orenii for galacto-oligosaccharide synthesis. Appl. Microbiol. Biotechnol. 2015; 99: 1731–1744.**
8. **Hassan, N**., Tan, T.C., Spadiut, O., Peterbauer, C., Haltrich, D. & Divne, C. **Crystal structures of Phanerochaete chrysosporium pyranose 2-**oxidase **suggest that the N-terminus acts as a propeptide that assists homotetramer assembly.** FEBS Open Bio, 2013; 3: 496-504.
9. **Hassan, Noor** & Kori, Lokesh & Gandini, Rosaria & Patel, B. & Divne, Christina & Tan, Tien. **High-resolution crystal structure of a polyextreme GH43 glycosidase from Halothermothrix orenii with a-L-**

arabinofuranosidase activity. Acta Crystallographica Section F Structural Biology and Crystallization Communications. 2015; 71: 338–345.

10. **Hassan, N**., Nguyen, T.H., Intanon, M., Kori, L.D., Patel, B.K., Haltrich, D., Divne, C. & Tan, T.C. **Biochemical and structural characterization of a thermostable beta- glucosidase from Halothermothrix orenii for galacto-oligosaccharide synthesis**. Appl. Microbiol. Biotechnol. 2015; 99: 1731–1744.
11. **Hassan, N**., Tan, T.C., Spadiut, O., Peterbauer, C., Haltrich, D. & Divne, C. **Crystal structures of Phanerochaete chrysosporium pyranose 2-oxidase suggest that the N-terminus acts as a propeptide that assists homotetramer assembly**. FEBS Open Bio, 2013; 3: 496-504.