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Rawalpindi, Pakistan
+92 335 9543687 📞
umme7054@.com ✉

UMM-E-HABIBA

Academic Profile

A high-achieving Biochemistry graduate (CGPA 3.68/4.00) from Arid Agriculture University, with specialized undergraduate research on Green Synthesis of Silver Nanoparticles Using Leaves and Stems of *Rubia cordifolia*. Demonstrates strong competency in molecular biology methods, process validation, and analytical approaches, supported by practical training in genetic testing and pharmaceutical applications. Actively expanding computational expertise through Python to bridge experimental biochemistry with bioinformatics-driven research.

Education

Bachelor of Science (B.Sc.) in Biochemistry (2021 – 2025)
PMAS Arid Agriculture University, Rawalpindi, Pakistan
Current CGPA: **3.68 / 4.00** (2056/2660≈**77%**)

Higher Secondary School Certificate (HSSC), Pre-Medical (2017 – 2021)
Harvard College of Commerce and Science, Rawalpindi, Pakistan
Achieved 878 / 1100 marks (≈**79.8%**)

Secondary School Certificate (SSC), Science (Biology Group) (2015 – 2017)
Grammar Foundation School, Rawalpindi, Pakistan
Achieved 834 / 10500 marks (≈**79.4%**)

Research Experience

Undergraduate Research Project (2023)
- Green Synthesis of Silver Nanoparticles Using Leaves and Stems of *Rubia cordifolia*
- Designed and executed experiments for synthesis and isolation of silver nanoparticles.
- Prepared plant extracts, performed centrifugation, and optimized experimental conditions.
- Gained hands-on exposure to nanoparticle preparation and green chemistry principles

Work & Laboratory Experience

Intern – IBGE Laboratory, KRL Hospital, Islamabad (6 weeks)
- Performed karyotyping, gel electrophoresis, capillary electrophoresis, DNA extraction, HIV testing, and sequencing.

Teaching & Management – Harvard College of Commerce and Science
- Assisted in teaching and academic management activities during undergraduate studies.

Academic Projects & Presentations

- Prepared a report on "Assessment of Undergraduate Students' Knowledge, Perception, and Prevention of Health and Environmental Effects of Smog" (Report Writing course, 7th semester).
- Presented a seminar on "Multiplex-edited Mice Exhibit Woolly Mammoth Hair Phenotypes" during undergraduate studies.

Skills

Research & Laboratory Skills
- Nanoparticle synthesis and characterization (Green synthesis using plant extracts)
- DNA extraction, Gel electrophoresis, Capillary electrophoresis
- Karyotyping and allelic matching for donor compatibility testing
- HIV diagnostic testing and molecular biology techniques
- Sample handling, data recording, and laboratory safety practices

Technical & Digital Skills
- Microsoft Office Suite (Word, PowerPoint, Excel)
- Basic Python Programming (*In Progress*, 2025)
- Report writing, presentation preparation, and scientific documentation

Certifications & Courses
- **Validation and Qualification for Pharma, Biotech, and Food Industries** – Alison Online Learning Platform (2025)
- **Webinar on Metagenomics** – Online Training, Pakistan (2025)
- **Fundamentals of Microsoft Office (Word, PowerPoint, Excel)** – Applied Skills Certification (2022)

Language Skills

Mother Tongue(s): Urdu
Other language(s): English
Listening B2 | Reading B2 | Writing B2 | Spoken Production B2 | Spoken Interaction B2
Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user