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Education

September 2013- August 2015	Quaid-I-Azam University, Islamabad, Pakistan. M.Phil Biochemistry and Molecular Biology (19 years) CGPA: 4.0/5 (80.8%) Major: Biochemistry and Molecular biology Modules: Advances in Molecular Biology, Immunochemistry, Gene expression and regulation, Techniques in Biotechnology, Gene cloning, Molecular Biology of Gene Expression & Function, Biostatistics and Computational Biology, Research techniques and instrumentation Advances in Molecular Diagnostics, Cancer genetics, Bioinformatics. Final year Project: Targeted Drug Delivery through Functionalized Manganese Ferrite Nanoparticles in Cancer Therapy
August 2008- June 2013	Riphah Institute of Pharmaceutical Sciences, Riphah International University, Islamabad, Pakistan. Doctor of Pharmacy (17 years) CGPA: 3.36/4 Modules: Modules: Pharmaceutics, Pharmaceutical Chemistry, Pharmacology, Anatomy, Physiology, Biochemistry, Microbiology Pathology, Biostatistics, Computer, and Professional Ethics
September 2006- September 2008	Federal Board of Intermediate and Secondary Education (FBISE Pakistan) Higher Secondary School Certificate (HSSC) Grade: B (67%) Key courses: Biology, Chemistry, Physics.
September 2004- September 2006	Federal Board of Intermediate and Secondary Education (FBISE Pakistan) Secondary School Certificate (SSC) Grade: A1 (83%) Key courses: Biology, Chemistry, Physics, Mathematics.

Training and work experience

- 1. Merck pharmaceuticals, Pakistan**
Appointment held –Professional Sales Officer. (September 2015- till date)
- 2. Quaid-I-Azam University, Islamabad, Pakistan**
Appointment held -Research Scholar (08/2014- 08/ 2015)
- 3. National Centre of Physics**
Appointment held -Research Scholar (12/2014-07/2015)
Areas of research: Nano particle synthesis and drug loading)
- 4.Institute of Biomedical and Genetic Engineering, KRL Hospital**
Appointment held -Research Scholar (08/2014- 06/2015)
Area of research : In vitro cytotoxicity and anticancer studies on various cancer cell lines
- 5. Armed Forces Institute of Cardiology, Rawalpindi, Pakistan.**
Appointment held: Internee in community pharmacy setup (01/ 2011-04/ 2011)
- 6. Islamic International Medical College-hospital, Islamabad, Pakistan.**
Appointment held: Internee as Hospital pharmacist (08/ 2012-05/ 2013)
- 7. Pakistan Railways hospital, Rawalpindi, Pakistan.**
Appointment held: Internee as Clinical Pharmacist (08/ 2012-05/ 2013)

Laboratory expertise

Aseptic and sterile techniques , drug loading on nano particles, IFTR analysis, DNA extraction, plasmid DNA preparation, preparation of restriction enzyme digests, PCR, agarose gel electrophoresis, SDS-PAGE, cell fractionation by differential centrifugation, preparation of cells for cryopreservation, bacterial staining and plating, use of biological safety cabinets, titrations, extractions filtrations, separations, simple and fractional distillation, thinlayer chromatography, HPLC, reflux, recrystallization, UV, visible mass spectroscopy, Animal tissue culture, Plant tissue culture, Southern Blotting, Western Blotting, DNA sequencing, Transformation techniques, Molecular analysis techniques, PCR, *In vitro & in vivo* biological assays.

Publications

- Biorobotics/robotics and high through-put techniques. 2016. Humna Hasan, **Muhammad Hassan Safdar**, Sana Zahid, Maria Bibi and Alvina Gul. In: Omics technologies and bioengineering. Elsevier publishers (IN PRESS).
- Agrobacterium* mediated transformation of *Withania coagulans* with *rol A* genes- an efficient way of enhancing its antioxidant potential. 2016. Humna Hasan, Samiya Rehman, **Muhammad Hassan Safdar**, Mustafeez Mujtaba Babar, Mariam Naeem, Bushra Mirza. Pakistan Journal of Agricultural Sciences. SUBMITTED.
- Biotechnological approaches in targeted drug delivery through nano particles. 2016. **Muhammad Hassan Safdar**, Uzma Latif, Humna Hasan, Fakiha Afzal. Biotechnology Advances. SUBMITTED.

Awards and Achievements

- Awarded **Merit scholarship** in all semesters during the course of M.Phil at Quaid-i-Azam University.
- Awarded **Merit scholarship** during the course of Pharm D at Riphah International University.
- Appointed as **Joint Secretary** of Biochemists Association of Quaid-I-Azam University (BAQI).
- Participated in **Young Ambassadors Program** organized by British Council from 2005-2006.
- Certificate of merit** presented by WSPA (2005).
- Scored **79/100 (99 percentile)** in **Local GRE**.

Miscellaneous information

- Excellent communication skills gained through my experience as a Class Representative in Pharm D
- Leadership ability (Head Representative at Riphah Institute of Pharmaceutical Sciences)
- Extensive use of Microsoft Office tools (Word, Excel, Access and PowerPoint. etc.) and Bioinformatics Software tools.
- Languages: Urdu, English
- Extracurricular activities: Basketball, table tennis, chess.

Personal Information

FATHER’S NAME: Syed Afzaal ur Rehman
NATIONALITY: Pakistan