Dr. Mohammad Haroon Khan

(HEC Approved Supervisor)

Contact Information
Email: mhkhan@cusit.edu.pk
genomexpert78@gmail.com

Address
Department of Computer Science, City University of Science & Information Technology, Dilazak Road, Peshawar, KP, Pakistan.

Phone
+92 331 5495540

Skills
- Bioinformatics / Computational Biology
- Cancer Research/Informatics
- Disease informatics
- Systems Biology
- R, C++, can work both with Windows and Linux
- Database handling and designing
- Big data analysis
- Natural Computing
- Machine Learning/Data mining
- Bioinformatics tools development
- Molecular Biology, Microbial Genetics
- Molecular Biology and Cell Biology techniques including DNA, RNA and Protein extraction, PCR, Electrophoresis, Hybridization, Sequencing etc.
- Cell culturing methods, Antimicrobial activity, Gene cloning, can work with cell organelles, Agrobacterium mediated transformation, Bacterial transformation
- Time Management
- Leadership

Languages
English, Urdu, Pushtu

PROFILE
I am a purposeful and dedicated individual who has a great deal of ambition. I have strong will to achieve results, love to learn and am always up to a challenge. I have excellent communication skills, able to intearct efficiently in a team and also c a n work efficiently on my own. I like new responsibilities, adverse working environment and like to work on a position where I can develop and excel while giving my best to the employer. I am well experienced in Curriculum Designin, Lab Development; and administrative settings.

EDUCATION

Capital University of Science and Technology Islamabad, Pakistan. 2016

Ph.D Bioinformatics
Department of Bioinformatics & Biosciences
Thesis title: Computational and molecular analysis of TP53, PTEN and AR genes in prostate adenocarcinoma.

NWFP Agricultural University, Peshawar Peshawar, KP, Pakistan. 2006

M.Phil (Biotechnology)
Institute of Biotechnology & Genetic Engineering
CGPA = 3.64/4.0

University of Peshawar Peshawar, KP, Pakistan 2003

M.Sc
Marks Obtained = 743/1200

University of Peshawar Peshawar, KP, Pakistan 2003

B.Sc

Board of Intermediate and Secondary Education Swat Swat, KP, Pakistan 1996

HSSC
Pre-medical

Board of Intermediate and Secondary Education Swat Swat, KP, Pakistan 1994

SSC
Science

EXPERIENCE

Department of Computer Sciences, City University of Science and IT, Peshawar, KP, Pakistan July-2018 till Currently	**Assistant Professor** -Teaching and Research -Event Organizer
Department of Bioinformatics, Hazara University Mansehra KP, Pakistan November-2016 till Nov. 2017	**Assistant Professor** -Teaching and Research -Project Coordinator of the Department -Member Board of Studies
Department of Bioinformatics and Biosciences, Capital University of Science and Technology Islamabad, Pakistan August-2008 to November-2016	**Lecturer** -Teaching and Research - Project Coordinator - Labs incharge - Member Board of Studies
Department of Biotechnology, University of Malakand KP, Pakistan August-2006 to August-2008	**Lecturer** - Teaching and Research
Agricultural Biotechnology Program, NARC Islamabad, Pakistan. June-2004 to July-2006	**Research Associate** - Reaserch

Teaching Experience = **Approximately 11 years**

PROJECTS

Molecular Characterization and Annotation of Multidrug resistance conferring genes in Mycobacterium tuberculosis isolates from Khyber Pakhtunkhwa, Pakistan. HEC funded. 0.5 Million. (Completed).

Identification of novel predictive markers for prostate Cancer. 12 Million (To be submitted to HEC).

Impact of industrial effluents on fish diversity in River Swat. 13 Million. Submitted to ALP.

Raising awareness about tuberculosis among rural population of KPK. 7.8 Million. Submitted to HEC.

Automated medical image analysis: A Mobile Application For disease Diagnosis. 10 Million. To be submitted to ICT R&D, Pakistan.

Integrative pathway analysis through machine learning (Completed). This project resulted in the development of a software and graduation of two BS students

Identification of Molecular Grade signatures in Prostate Cancer through machine learning.

Development of Software to Compute the Maximum Similarity Bi-Cluster of Gene Expression Data (SCMSB)

Type 2 diabetes and its association with diabetic complications through metabolic and genotyping profiling

Denoising PCR-amplified metagenome data

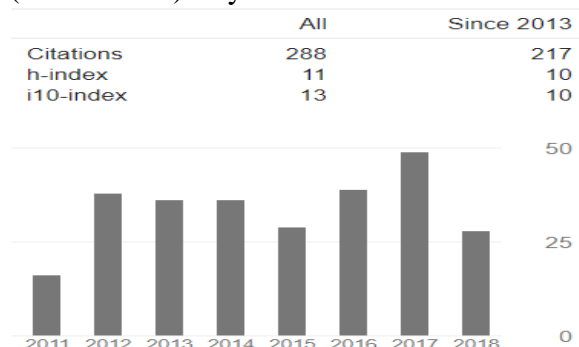Prediction of Protein Subcellular Localization using Neural Network and HMM Algorithm

A Web Based Tool for Prediction of Placebo Responders Using Rating Scale Techniques

Computational analysis of functional impact of missense varients in hypertrophic cardiomyopathy by supervised learning

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ACHIEVEMENTS

- Research Productivity Award (RPA 2012) by Government of Pakistan.
- Publications in Impact Factor Journals < 35
- Impact Factor < 35
- Citations > 224+
- Conference publications = 26.
- Papers under review = 10.
- Group Leader of MBioR.
- Creator of www.pakprostate.com Pakistan's First Prostate Cancer Repository.
- Symposiums/Conferences/Workshops Organized = 16.
- Symposiums/Conferences/Workshops attended = 19.
- Coordinator GENIX society (2008-2009) of Bioinformatics, Mohammad Ali Jinnah University, Islamabad, Pakistan.

	All	Since 2013
Citations	288	217
h-index	11	10
i10-index	13	10

Honors & Awards

- Research Productivity Award (RPA 2012) by Pakistan Council for Science and Technology (PCST), Government of Pakistan.

- Won Dean Honor Roll in the year 2010 at Muhammad Ali Jinnah University, Islamabad, Pakistan.

MEMBERSHIPS

- Asian Pacific Organization for Cancer Prevention (APOCP)
- American Association for Cancer Research (AACR)

RESEARCH PUBLICATIONS (Impact Factor Journals)

1. Hussain S, Khattak JZK, Mansoor Q, Siddiqi S, **Khan MH**, Ismail M. 2017. Molecular characterization of autosomal recessive non syndromic hearing loss in selected families from District Mardan, Pakistan. Pak. J. Pharm. Sci. 31(1): 051-056. (IF = 0.682).

2. Aziz SE, Bano R, Ali H, El-Shikh MS, **Khan MH**, Chaudhry Z, Rashid H. 2017. Protein modeling of yellow rust disease in wheat. Pak J Bot. 49(2): 775-780. (IF=0.658).

3. Bano R, Ismail M, Nadeem A, **Khan MH**, Rashid H. 2016. Potential Risk Factors for Breast Cancer in Pakistani Women. Asian Pac J Cancer Prev. 17 (9): 4307-4312. (IF = 2.5).

4. **Khan MH**, Hussain S, Bano R, Hassan HJ, Rehman MA. 2016. Association of most prevalent risk factors with lung cancer and their impact on survival length. Asian Pac J Cancer Prev. 17 Spec: 65-70. (IF = 2.5).

5. Hussain S, Bano R, **Khan MH**. 2016. Association of CYP17-34T/C polymorphism with pancreatic cancer. Asian Pac J Cancer Prev. 17 Spec: 71-75. (IF = 2.5).

6. **Khan MH**, Khalil A, Rashid H. 2015. Evaluation of the p53 Arg72Pro polymorphism and its association with cancer risk: a HuGE review and meta-analysis. Genet Res. 97: e7. doi:10.1017/S0016672315000075. (IF = 1.5).

7. **Khan MH**, H Rashid, Q Mansoor, A Hameed, M Ismail. 2014. Association of rs1042522 Polymorphism with Increased Risk of Prostate Adenocarcinoma in the Pakistani Population and its HuGE Review. Asian Pac J Cancer Prev. 15(9): 3973-3980. (IF = 2.5).

8. Jabeen F, **Khan MH**, Rashid H. 2015. Structural and functional homology of human presenilins gene with other organisms. African Journal of Biotechnology. (Accepted).

9. Mansoor A, Ali L, Sabah N, Ahmad N, **Khan MH,** Kazmi A R, Siddiqi S, Khan K M. 2013. Study of PKRBD in HCV genotype 3a infected patients in response to Interferon therapy . Virology Journal. 10:352. (IF = 2.09)

10. Kanwal H, **Khan MH,** Rashid H. 2013. Effect of missense mutations

on structure and interaction of anaplastic lymphoma kinase (ALK) in neuroblastoma. Pakistan Journal of Pharmaceuticle science. 26(3): 611-616. (IF = 0.950)

11. **Khan MH**, Fazal S, Bano R, Rashid H. 2013. A miracle if restored; p53. African Journal of Biotechnology. 12(24): 3745-3751.

12. **Khan MH**, Mansoor Q, Rashid H, Ismail M. 2012. The black face of TP53 in prostate cancer. Pak J Physiol. 2; 8(Suppl 1): 29.

13. Navid A, **Khan MH,** Rashid H. 2012. Aberrant expression analysis of LMNA gene in hutchinson-gilford progeria syndrome. Bioinformation. 8(5): 221-224. (IF = 0.5)

14. Waheed R, **Khan MH**, Bano R, Rashid H. 2012. Sequence and structure based assessment of non-synonymous SNPs in hypertrichosis universalis. Bioinformation. 8(7): 316–318. (IF = 0.5)

15. Farid R, **Khan MH,** Rashid H. 2012. Receptor modification as a therapeutic approach against viral diseases. Bioinformation. 8(7): 331–335. (IF = 0.5).

16. Rashid H, **Khan MH**, Chaudhry Z, Bano R, Raja NI. 2012. An improved *Agrobacterium* mediated transformation system in wheat. Pak. J. Bot. 44(1): 297-300. (IF = 0.872)

17. Noor A, Rashid H, Chaudhry Z, **Khan MH**. 2011. Studies on the effect of genotype and explant type on callogenesis and organogenesis in *indica* rice. Pak. J. Bot. 43(5): 2445-2449. (IF = 0.907)

18. **Khan MH**, Rashid H, Mir A. 2011. Phylogenetic analysis of human TP53 gene using computational approach. African Journal of Biotechnology. 10 (3): 344-349. (IF = 0.57)

19. Bano R**,** Fazal S, **Khan MH**. 2011. miRNAs; Small but deadly. African Journal of Biotechnology. 10(47): 9542-9548. (IF = 0.57)

20. Rashid H, Z Chaudhry and **MH Khan.** 2011. Effect of explant plant source and acetosyringone concentration on transformation efficiency of wheat cultivars. African Journal of Biotechnology. 10(44): 8737-8740. (IF = 0.57)

21. Bano R, **Khan MH**, Rashid H, Khan RS, Munir I, Swati ZA, Chaudhry Z. 2010. Callogenesis and organogenesis in three cultivars of *Brassica juncea* affected by explants source. P. J. Bot. 42(6): 3925-3932. (IF = 0.947)

22. Rashid H, Afzal A, **Khan MH**, Chaudhry Z, Malik SA. 2010. Effect of bacterial culture density on *Agrobacterium* mediated transformation in wheat. P. J. Bot. 42(6): 4183-4189. (IF = 0.947)

23. Afzal A, Rashid H, **Khan MH,** Chaudhry Z. 2010. High frequence regeneration system optimization for wheat cultivar Inquilab-91. P. J. Bot. 42(3): 1857-1862. (IF = 0.947).

24. Raja NI, Rashid H, **Khan MH,** Chaudhry Z, Shah M, Bano A. 2010. Screening of local wheat varieties against bacterial leaf streak caused by different strains of *Xanthomonas translucens* pv. *undulosa* (*Xtu).* P. J. Bot. 42(3): 1601-1612. (IF = 0.947)

25. Bano R, **Khan MH**, Khan RS, Rashid H, Swati ZA. 2010. Development of an efficient regeneration protocol for three genotypes of *Brassica juncea.* P. J. Bot. 42(2): 963-969. (IF =0.947)

26. Hussain Z, **Khan MH,** Bano R, Rashid H, Chaudhry Z. 2010. Protocol optimization for an efficient callus induction and regeneration in three Pakistani rice cultivars. P. J. Bot., 42(2): 879-887. (IF = 0.947)

27. Raja NI, Bano A, Rashid H, **Khan MH,** Chaudhry Z. 2009. Effect of age of embryogenic callus on plant regeneration in local cultivars of wheat (*Triticum aestivum* L.). P. J. Bot. 41(6): 2801-2806. (IF = 0.520)

28. Ali A, **Khan MH**, Bano R, Raja NI, Rashid H, Chaudhry Z. 2009. Screening of Pakistani rice (*oryzae sativa*) cultivars against *Xanthomonas oryzae* pv. *oryzae.* P. J. Bot. 41(5): 2595-2604. (IF = 0.520)

29. **Khan MH, R**ashid H, Swati ZA, Chaudhry Z. 2007. *Agrobacterium* mediated transformation to build resistance against bacterial blight in rice. P. J. Bot. 39(4): 1284-1291. (IF = 0.290)

30. Asghar A, Rashid H, Ashraf M, Chaudhry Z, **Khan MH.** 2007. Improvement of basmati rice against fungal infection through gene transfer technology. P. J. Bot. 39(4):1277-1283. (IF =0.290).

RESEARCH PUBLICATIONS (Non-Impact Factor Journals)
1. Noreen S, Nouroz F, Ahmad S, Khan S, **Khan MH**. 2016. Analysis of Wound Infections in Diabetic Patients in Abbottabad and Mansehra Districts Pakistan. American-Eurasian Journal of Toxicological Sciences. 8(4): 148-151.

2. Tariq AU, **Khan MH,** Hussain S, Bano R, Navid A. 2015. In Silico Characterization of Genetic Alterations Associated with Mal De Meleda. IJSBAR. 19(2): 65-76.

3. Hussain S, **Khan MH,** Khan MT, Zeb S, Haseeb M, Tariq AU. 2014. Association of GJB2 gene mutations with non syndromic autosomal recessive deafness in different populations of the world. International Journal of Basic and Applied Sciences. 3 (4): 521-526. (IF = 1.2).

4. Khan MM, **Khan MH**, Alves MS, Sherwani SK, Baig MA, Kamal M. 2013. Structure based assessment of RpoB gene from multiple-drug resistant Mycobacterium tuberculosis clinical isolate. International Journal of Advanced Research. 1(7): 567-575.

PUBLICATIONS/ABSTRACTS (CONFERENCES)

1. **Khan MH**, Bano R, Ismail M, Mansoor Q, Shah GM, Nouroz F, Rashid H. 2017. Association between novel genetic alterations of AR gene and their interaction with common risk factors in prostate cancer. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 61.

2. Bano R, **Khan MH**, Rashid H. 2017. Body mass index and association with breast cancer risk in Pakistani women. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 62.

3. Hussain S, **Khan MH**. Genetic analysis of families with microcephaly from Khyber Pakhtunkhwa. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 126.

4. Shaheen S, Nouroz F, Bibi N, **Khan MH,** Mujtaba G, Noreen S. 2017. Sequence analysis among different HCV genotypes in their 5′UTR region. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 140.

5. Abrar S, Rahim MS, Ullah M, Bano R, Hussain S, Shah GM. **Khan MH. 2017.** Association of socio-demographic factors with female fertility impairment in Pakistan. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 150.

6. Khan MA, Nouroz F, **Khan MH**, Khan S. 2017. In Silico nanoparticles-based drugs designing for astrocytomas. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 157.

7. Khan AW, Nouroz F, **Khan MH**, Shah GM, Noreen S. 2017. Virtual screening and candidate drug designing against HCV NS5B. First National Conference on Emerging Trends in Bioinformatics and Biosciences. July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan: 187.

8. **Khan MH. 2016.** Application of bioinformatics in the study of biodiversity; biodiversity informatics. 6th National Conference on Climate Change and Biodiversity Conservation Issues of Pakistan. 2-4 June, 2016, Bara Galli summer campus, University of Peshawar.

9. **Khan MH.** 2015**.** Human genetic and functional diversity analysis in worldwide populations with reference to CYP450 genes family genes. 5th National Conference on Trends towards Biodiversity Conservation in Pakistan, 2-4 August, 2015, Bara Galli summer campus, University of Peshawar.

10. Khan MM, **Khan MH**, Alves MS, Dad FK, Ali S, Khan M, Kamal M. 2014. Investigation of S315R and S315T through structural analysis coupled with docking studies of isoniazid prodrug to wild type & mutant KatG of MDR-MTB. Proceedings of 3rd

International Conference on Clinical Microbiology & Microbial Genomics-2014. September 24-26, 2014. Valencia Convention Centre, Spain. doi: 10.4172/2327-5073.S1.013

11. Nadeem M, Ghayyur O, **Khan MH.** 2014. *In silico* microarray data analysis of down expressed genes responsive for prostate cancer. 1st International Young Engineers Convention (IYEC), 18-20 April, 2014. UET Lahore Pakistan: 82.

12. Ghayyur O, Nadeem M, **Khan MH.** 2014. Microarray data analysis of prostate cancer using Bioinformatics tools. 1st International Young Engineers Convention (IYEC), 18-20 April, 2014. UET Lahore Pakistan: 95.

13. Sumbal Arshad, Sayed Saad ur Rehman, **Khan MH.** 2014. Detection of Tuberculosis Bacilli using image processing. 1st International Young Engineers Convention (IYEC), 18-20 April, 2014. UET Lahore Pakistan: 103.

14. Akhter SA, Naz Shakeela, **Khan MH.** 2014. Association analysis of type-II Diabetes with allied complications. 1st International Young Engineers Convention (IYEC), 18-20 April, 2014. UET Lahore Pakistan: 256.

15. **Khan, M. H.** 2011. Molecular Biology and computational analysis of P53 genetic alterations associated with prostate cancers in Pakistani population. 10th Shaukat Khanum Memorial Cancer Symposium, 18-20th November, 2011. Lahore Pakistan: 79.

16. Khan HN, **Khan MH,** Rashid H. 2009. Structure prediction and analysis of mouse amiloride- sensitive cation channel 2, neuronal using bioinformatics tools. IEEE, ICET International Conference on Emerging Technologies, 19-20 Oct. FAST, Islamabad: 168 – 172.

17. **Khan MH**, Rashid H, Chaudhry Z. 2007. Development of broad spectrum disease resistance in rice cultivars through genetic manipulation. 1st National Symposium on Biotechnology; Recent Advances, Department of Biotechnology, University of Malakand.

18. **Khan MH,** Bano R, Rashid H. 2008. Broad spectrum disease resistance against bacterial and fungal diseases in rice. 9th Biennial Conference PSBMB. Arid Agriculture University, Rawalpindi, Pakistan.

19. Bano R, **Khan MH,** Khan RS. 2008. Regeneration protocol for three genotypes B*rassica juncea.* 9th Biennial Conference PSBMB. Arid Agriculture University, Rawalpindi, Pakistan.

20. Rashid, H., A. Noor., **M. H. Khan** and Z. Chaudhary. 2005. Improvement of rice for disease resistance by *Agrobacterium* mediated transformation. International Seminar on Rice Crop, October 2-3.

21. **Khan MH,** Rashid H, Swati ZA, Chaudhry Z. 2005. *Agrobacterium* Mediated Transformation in Rice To Build Resistance Against Bacterial Blight. 18th FAOBMB Symposium.

22. Rashid H, **Khan MH**, Noor A, Chaudhry Z. 2005. Transgenic Plant Production of Rice For Disease Resistance By *Agrobacterium* Mediated Transformation. 18th FAOBMB Symposium.
23. Noor A, Rashid H, **Khan MH,** Chaudhry Z. 2005. Evaluation of resistance of rice varieties against bacterial blight caused by *Xanthomonas oryzae* cv *Oryzae*.18th FAOBMB Symposium.
24. **Khan MH**, Swati ZA, Rashid H, Noor A, Chaudhry Z. 2005. Comparison of rice cultivars for callus induction and callus growth frequencies. 3rd International Symposium on Biotechnology. University of Sindh, Jamshoro.
25. Noor A, Rashid H, Mirza B, **Khan MH,** Chaudhry Z. 2005. Effect of application of different concentrations of Acetosyringone for the improvement of transformation efficiency in rice. 3rd International Symposium on Biotechnology, December 15-18, University of Sindh, Jamshoro.
26. **Khan MH**, Noor A, Rashid H, Akhter A, Shah SH, Chaudary Z. 2007. Pathological studies of 47 local isolates of Xanthomonas oryzae strains pv. Oryza on 7 rice cultivars. International symposium on microbial technologies for sustainable agriculture held at NI BGE , Faislabad, on 12-16 March

RESEARCH PUBLICATIONS (Under Review)

1. Khan MT, Hussain S, **Khan MH.** 2017. Association between rs2740574 single nucleotide polymorphism and cancer risk. Indian Journal of Experimental Biology.
2. **Khan MH,** Bano R, Rashid H, Chaudhry Z. 2017. Diversity and dynamics of local and exotic isolates of *Xanthomonas oryzae* pv. *oryzae* over major cultivated rice varieties of Pakistan. Pakistan Journal of Botany.
3. **Khan MH**, Rashid H, Bano R. 2017. Aberrant expression of p53 in human brain tumors. Tumor Biology.
4. Bano R, Rashid H, **Khan MH.** 2017. miRNAs interaction with BRCA1 gene in breast cancer metastasis. Tumor Biology.
5. **Khan MH,** Bano R, Rashid H. 2017. P53 and BRCA1 interactions in human cancers. Genetics and Molecular Research.
6. **Khan MH,** Bano R, Fazal S. 2017. Insecticide resistance analysis in *Musca domestica.* Biologia.
7. Naeem M, **Khan MH,** Rashid H. 2017. A Computational approach towards C-value enigma solution. BMC Bioinformatics.
8. Qurat-ul-Ain, **Khan MH**, Rashid H. 2017. Aberrant expression profile analysis IDH1 gene in human brain tumors. Tumor Biology.
9. Safdar, F., **M. H. Khan** and H. Rashid. 2017. Phylogenetic and linkage analysis of Human PTEN gene. Evolutionary Bioinformatics.
10. Bano, R., **M. H. Khan** and S. Fazal. 2017. Insecticide resistance modeling in *Anophelis gambea.* Biologia.

11. Bano, R., **Khan, M. H** and H. Rashid. 2017. Analysis of BRCA1 and P53 interactions in breast cancers. African Journal of Biotechnology.

MS STUDENTS SUPERVISED

1. Mr. Sadiq Rahim (2017). M.Phil Bioinformatics. Hazara University Mansehra, KP, Pakistan. Thesis title:
2. Mr. Syedul Abrar (2017). M.Phil Bioinformatics. Hazara University Mansehra, KP, Pakistan. Thesis title:
3. Mr. Taskeen ur Rehman (2017). M.Phil Bioinformatics. Hazara University Mansehra, KP, Pakistan. Thesis title:
4. Noor ul Ain Khaliq. MS Bioinformatics (Capital University of Science and Technology, Islamabad, Pakistan). Thesis title: **Candidate drug designing against Multi drug resistant *S. Typhi*. 2016.**
5. Sadia Abbasi. MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad, Pakistan). Thesis title: **Virtual screening and lead optimization towards a novel anti-cancer candidate drug design. 2014/15.**
6. Muhammad Haseeb. MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad, Pakistan). Thesis title: **Mathematical Modeling of Crosstalk between Wnt and cell cycle pathways. 2014.**
7. Aftab Khalil. MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad, Pakistan). 2014/15.

STUDENTS CO-SUPERVISED

1. Kainat Fatima. BS Bioinformatics (International Islamic University, Islamabad, Pakistan). 2013.
2. Sana Masood. BS Bioinformatics (International Islamic University, Islamabad, Pakistan). 2013.
3. Ghania Bajwa. BS Bioinformatics (International Islamic University, Islamabad, Pakistan). 2013.
4. Sana Saeed. BS Bioinformatics (Shaheed Benazir Bhuto Women University, Peshawar, Pakistan). 2013.

STUDENTS INSTRUCTION

1. Mr. Mohammad Naeem, MS Computer Science (Mohammad Ali Jinnah University, Islamabad) "A Computational approach towards C-value enigma solution" 2011.

2. Mr. Sajid Khan MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad) "Tool development for cancer data set based on unsupervised data", 2011.

3. Ms. Rabiya Farid MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad) "Receptors modifications to develop resistance against polio virus", 2011.

4. Ms. Qurat-ul-Ain MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad), "Aberrant expression profile analysis IDH1 gene in human

brain tumors", 2011.

5. Ms. Fauzia Jabeen MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad), "Structural and functional homology of human presenilins gene with other organisms ", 2011.

6. Ms. Afifa Naveed MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad), "Loss of gene function due to repeated mitosis", 2011.

7. Ms. Faiza Safdar MS Bioinformatics (Mohammad Ali Jinnah University, Islamabad), "Phylogenetic and linkage analysis of Human PTEN gene", 2011.

8. Miss. Aasia Sakina, MPhil (Quaid-I-Azam University, Islamabad). Molecular and Physiological Characterization of Transgenic Plants of Rice. 2007

9. Miss. Ayesha Asghar, MPhil Quaid-I-Azam University, Islamabad). Improvement of basmati rice against fungal infection through gene transfer technology. 2007

10. Miss. Sidra Ashiq Rana, BSc Hons in Agriculture (University of Agriculture, Faisalabad).

11. Internship Report on "Callus induction and Agrobacterium mediated transformation in rice (Oryza sativa cv. JP-5 and B-385)". 2007

12. Miss. Sana Aizad, BS Bioinformatics (Mohammad Ali Jinnah University, Islamabad). Internship Report, 2007.

13. Miss. Humaira Ahmed Khan, BS Bioinformatics (Mohammad Ali Jinnah University, Islamabad). Internship Report, 2007.

14. Miss. Fiza, BS Bioinformatics (Mohammad Ali Jinnah University, Islamabad). Internship Report, 2007.

15. Miss. Mahjabeen, BSc Hons in Agriculture (Arid Agricultural University, Rawalpindi). Internship Report, 2006.

16. Miss. Rabbana, BSc Hons in Agriculture (Arid Agricultural University, Rawalpindi). Internship Report, 2006.

17. Miss. Amara Batool, BSc Hons in Agriculture (University of Agriculture, Faisalabad). Internship Report, 2006.

18. Miss. Saima, BSc Hons in Agriculture (University of Agriculture, Faisalabad). Internship Report, 2006.

SYMPOSIUMS / CONFERENCES / WORKSHOPS ORGANIZED
1. Focal Person/Organizing Secretory. First National Conference on Emerging Trends in Bioinformatics and Biosciences, July 20-22, 2017. Hazara University, Mansehra, KP, Pakistan.
2. Organizer 7th One Day Workshop on the Significance of Bioinformatics

in Life Sciences" May 07, 2016, CUST, Islamabad.

3. Organizer, 3rd International Conference on "Emerging trends in Bioinformatics and   Biosciences" Sep 19, 2015, Mohammad Ali Jinnah University, Islamabad.

4. Organizer 6th One Day Workshop on Impact of Bioinformatics in Life Sciences" May 09, 2015, MAJU, Islamabad.

5. Organizer, Workshop on "Proteomics and Advanced Bioinformatics" June 11-12, 2014, Mohammad Ali Jinnah University, Islamabad.

6. Organizer, 2nd Conference on "Emerging trends in Bioinformatics and Computational Biology" June 7, 2014, Mohammad Ali Jinnah University, Islamabad.

7. Organizing Secretary, 5th One day Workshop on Bioinformatics, May 10, 2014, Mohammad Ali Jinnah University, Islamabad.

8. Organizing Secretary, Conference on "Emerging trends in Bioinformatics and Computational Biology" May 25, 2013, Mohammad Ali Jinnah University, Islamabad.

9. Organizing Secretary 4th One day Workshop on Bioinformatics, May 04, 2013, Mohammad Ali Jinnah University, Islamabad.

10. Organizing Secretary 3rd One day Workshop on Bioinformatics, June 18, 2012, Mohammad Ali Jinnah University, Islamabad.

11. Organizer 2nd One day Workshop on Bioinformatics, July 25, 2011, Mohammad Ali Jinnah University, Islamabad.

12. Organizer of 1st One day Workshop on Bioinformatics, May 8, 2010, Mohammad Ali Jinnah University, Islamabad.

13. Chief Organizer of 1st International Symposium on Biotechnology; Current Trends, 2 -4 July, 2008, University of Malakand.

14. Organizing Secretary of 1st National Symposium on Biotechnology; Recent Advances, 21 -24 May, 2007, University of Malakand.

15. Organizer National Symposium on Old Plants New Remedies, Sheringal Campus-II, University of Malakand.

16. Organizer National Workshop for College teachers on BSc four Year Degree Programme, Sheringal Campus-II, University of Malakand.

SYMPOSIUMS / CONFERENCES / WORKSHOPS ATTENDED

1. 5th National Conference on Trends towards Biodiversity Conservation in Pakistan, 2 -4 August, 2015, Bara Galli summer campus, University of Peshawar (Resource Person).

2. International Seminar on Nanotechnology and stakeholders in Pakistan, 28th Jan. 2013. Preston Institute of Nano science and technology (PINSAT), Preston University, Islamabad, Pakistan.

3. 11th Shaukat Khanum Memorial Cancer Symposium, 9-11th November, 2012. Lahore Pakistan. National Science Conference, 10-12 Jan, 2012. PMAS Arid Agricultural University, Rawalpindi, Pakistan.

4. 10th Shaukat Khanum Memorial Cancer Symposium, 18-20th November, 2011. Lahore Pakistan.

5. International Conference on Prospects and challenges To Sustainable Agriculture, 13 -15th July, 20011. Faculty of Agriculture, Rawalakot, University of Azad Jammu & Kashmir.
6. One day workshop on Research methodoly, April 9th, 2011, Mohammad Ali Jinnah University, Islamabad.
7. 9th Biennial Conference PSBMB, 17-20th December, 2008. Arid Agriculture University, Rawalpindi, Pakistan.
8. Second HEC workshop "Training the Trainers in Plant Bio-diversity and Conservation" 20-21st August 2007, Center of Bio-diversity, University of Peshawar.
9. One day National Seminar on Bird Flu Surveillance, Prevention and Control, 16 th June, 2007, Veterinary Research Institute, Peshawar.
10. 1st National Symposium on Biotechnology; Recent Advances, 21-24 May, 2007, University of Malakand.
11. International Symposium on Microbial Technologies for Sustainable Agriculture Exploring the Hidden Potentials of Microbes, 12-16 March, 2007, National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad.
12. Shaping future Agriculture, 1st International conference on Biotechnology held at Arid Agriculture University, Rawalpindi,16-17th June2006.
13. 3rd International Symposium on Biotechnology, December 15-18, 2005, University of Sindh, Jamshoro.
14. Workshop on Biotechnology Techniques at Jamshoro. 27th June 2005 – 1st May 2005.
15. 18th FAOBMB Symposium, 20-23 November 2005, Lahore,International Conference on Rice Crop, 2nd-3rd June 2005, at Kala Shah kako, Lahore.
16. Training Course for Teachers, 19th – 31st December 2005, Mohammad Ali Jinnah University, Islamabad.
17. International Conference on medicinal Plants, Linkages beyond boundaries, at Islamabad , 9th Sep 2004 – 11th Sep. 2004.

SEQUENCES SUBMITTED TO GENEBANK

1. AB776699: Mycobacterium tuberculosis katG gene for catalase-peroxidase, partial cds, strain: MMK1
2. AB776695: Mycobacterium tuberculosis katG gene for catalase-peroxidase, partial cds, strain: MMK2

PROTEINS STRUCTURE SUBMITTED TO STRUCTURE DATABASES

1. SLURP1_HUMAN Secreted Ly-6/uPAR-related protein (PMDB ID: PM0077826)
2. ABC2 membrane 3 domain of ATP-binding cassette sub-family A member 12 protein (PM0077847; PM0077848; PM0077846)
3. ALK tyrosine kinase receptor (PMDB ID:PM0077827)
4. Dentin matrix protein 4 (PMDB ID:PM0077844)
5. Dystrophin (PMDB ID:PM0077842)
6. Elastin (PMDB ID:PM0077833)
7. Enamelin (PMDB ID:PM0077962)
8. Hamartin (PMDB ID:PM0077822)
9. Interferon regulatory factor 6 (PMDB ID:PM0077899)
10. Lamin-A (PM0077829)
11. Lysophosphatidic acid receptor 6 (P2RY5) (PMDB ID:PM0077839)
12. NACHT (PMDB ID:PM0077852)
13. NF1 (PMDB ID:PM0077849)
14. Protein-glutamine gamma-glutamyltransferase 5 (PMDB ID:PM0077830)
15. Protoporphyrinogen oxidase (PMDB ID:PM0077850)
16. Protoporphyrinogen oxidase (PMDB ID:PM0077850)
17. R-spondin-4 (PMDB ID:PM0077828)
18. SOS1 (PMDB ID:PM0077838)
19. Sulfate transporter (SLC26A2) (PM0077831)
20. Zinc finger transcription factor Trps1 (PMDB ID:PM0077843)

FIELDS OF INTEREST

1. Bioinformatics
2. Cancer Biology
3. Systems Biology
4. Computational Biology
5. Molecular Biology
6. Synthetic Biology
7. Structural Biology
8. DNA finger printing
9. Functional Genomics
10. Genetic Engineering
11. Tissue Culture
12. Biotechnology

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