

# **Dr. Asma Irshad (PhD)**

**HEC Approved PhD Supervisor**

<https://orcid.org/0000-0002-0594-5877>

## **RESEARCH EXPERTISE AND INTERESTS:**

**Molecular Nanotechnology**, (Gold, Silver and Carbon nanomaterials) Characterization (Zeta-sizer, UV-VIS, FT-IR, SEM-EDS, STEM, AFM and XRD), **Proteomics**, protein isolation, quantification and purification by various molecular techniques, Protein Structure Analysis & Computer aid Drug Designing, **Antibody production** and quantification, **Animal trials** on rabbits, goats, chicks and rats, **Tissue/Cell culture**, **Cancer genetics**, **Enzyme production** and purification, **Electrophoresis** (SDS-PAGE, Gel Electrophoresis) and **Chromatography** (Affinity chromatography, Ion exchange chromatography, Gel filtration chromatography, HPLC and GC-MS), **Antimicrobial**, **Biofilm**, **Phytochemistry**, **Toxicological**, **Antioxidant** and **DNA damage assay**, **Biochemical**, **Nutritional** and **Neutraceutical analysis**, **Mutagenicity** and **Carcinogenicity potential analysis**.

## **QUALIFICATION:**

### PhD (Biochemistry)

**Session: 2014-2017**

**Institute:** University of Agriculture Faisalabad, Pakistan

**CGPA:** 3.65/4.00

**Thesis:** Biochemical characterization of *glucans* from mushrooms and their application as green matrix for nano-particles.

### Mphil

**Session: 2011-2013**

**Institute:** University of Veterinary and Animal Sciences, Lahore

**Majors:** Molecular Biology and Biotechnology

**CGPA:** 3.80/ 4.00

**Thesis:** An Insight into mutational analysis of B-cell lymphoma 2 (BCL-2) gene and its involvement in Pet cancers.

### MSc (Biochemistry)

**Session: 2009-2011**

**Institute:** University of Agriculture Faisalabad, Pakistan

**Majors:** Biochemistry

**CGPA:** 3.92/4.00

**Thesis:** Biochemical and Medicinal analysis of *Gynoderma Spp.*

### BSc (Medical Laboratory Technology)

**Session: 2004-2009**

**Institute:** University of Punjab, Lahore, Pakistan

**Majors:** (Biochemistry, Histopathology, Microbiology)

**Grade:** A

### HSSC

**Session: 2002-2004**

**Institute:** Board of Intermediate and Secondary Education Multan

**Majors:** F.Sc (Pre Medical)

**Grade:** A

### SSC

**Session: 1999-2001**

**Institute:** Board of Intermediate and Secondary Education Multan

**Majors:** Science

**Grade:** A

## **AWARDS:**

- First prize winner of Poster Presentation in 1<sup>st</sup> International Conference “ Future Med-2018” Faculty of Medical & Health Sciences, Sargodha-Pakistan
- First position in PhD Compressive examination
- Merit Scholarship in M.Sc Biochemistry degree program
- 3<sup>rd</sup> Position in Medical Laboratory Technology
- Distinction in Clinical Pathology in Punjab in Medical Laboratory Technology
  - 1<sup>st</sup> Position in School in 8<sup>th</sup> class in Secondary School Certificate

## **➤ PROJECTS:**

- **Development of nanoparticles based immunodetection assay of chicks fed with edible vaccine against NDV** (Completed) amount: **PKR. 494216/-**
- **Determination of Molecular Biomarkers for Cancer patients in Pakistan for Early Diagram and prognosis.** (On-going) amounting **PKR. 13860000/-**
- **Application of carbon nanotubes as inducer of biomass yield improvement in maize** (Submitted)
- **Cell specific photo thermal therapy using Nanoparticle-nanobody conjugate against Head and Neck cancers** (Submitted)
- **Cotton fiber polysaccharides as potential reducing agent for nanoparticle-based dressings in wound healing** (Submitted)

## **➤ SUPERVISOR:**

Sr #	Name of post graduate student	Discipline	Registration No.	Title of Thesis	Status	Process
1	Sadia Amjad	PhD (Molecular Biology)	PhD-MB15F18	Determination of Antimicrobial Activity of Carbon nanomaterials against Phytopathogenic Gene of Virulence	Co-Supervisor	Continue
	Name of Graduate student		Registration No.	Title of Thesis	Status	Process
1	Maira Zahid	M.Phil (Molecular Biology)	2012-PTL-540	Development of polyclonal anti body against NDV F protein expression in <i>E. coli</i> and its application as conjugate for nanoparticles.	Supervisor	Completed
2	Izba amjad	MS-BC	F2019253028@umt.edu.pk	Synthesis and characterization of gold nanoparticle	Supervisor	Completed
3	Attifa Saddiq	MS-BC	F2019253029@umt.edu.pk	Clinical aspects of biologically active compounds extracted from green matrixes	Supervisor	Completed
4	Iram	MS-BT	F2019254034@umt.edu.pk	AKT/Pi3CK Mutations	Supervisor	Completed

				and Clinical outcome of Castration resistance prostate cancer treated with LU-177		
5	Anam azam	MS-BT	F2019254008@umt.edu.pk	1) An insight into clinical consequences of HTAF7L gene: A male infertility. 2) Determination of diverse human spermatogenesis defect on X - chromosome with clinical relevance.	Supervisor	Completed
6	Ansa Saeed	MS-BC	F2019253035@umt.edu.pk	Determination of antimicrobial and antioxidant activity of Cinnamomum verum and Punica granatum	Supervisor	Completed
7	Jennifer	MS-BT	F2019254005@umt.edu.pk	Prevalence of tuberculosis in 29 union councils of tehsil Mian Channu, DIST: Khanewal, Pakistan and its genetic variants	Supervisor	Completed
8	Maria Oubaid	MS-BC	F2019253010@umt.edu.pk	Complications faced by pregnant women in southern Punjab	Supervisor	Completed
9	Muhammad Nadeem	MS-BT	F2019254006@umt.edu.pk	Trachysupermum ammi and citrus limon amalgam: A gateway to the natural medication	Supervisor	Completed
10	Abida Nisar Khattak	MS-BT	F2020254010@umt.edu.pk		Supervisor	Continue
11	Amber Mubeen	MS-BT	F2020254002@umt.edu.pk		Supervisor	Continue
12	Amna Yakoob	MS-BT	F2020254009@umt.edu.pk		Supervisor	Continue
13	Gull Jee	MS-BT	F2020254008@umt.edu.pk		Supervisor	Continue
14	Zilwa	Mphil-BT			Co-Supervisor	Continue
15	Naila mubarik	Mphil-BT			Co-Supervisor	Continue
Name of UG student		Registration No.	Title of Thesis	Status	Process	
1	Areesha Ahmad	BS-BT	F2018231099	Antimicrobial activity of CdS quantum dots conjugated with Azadirachta indica and Zingiber officinale	Supervisor	Continue
2	Rabbia Jawad	BS-BT	F2018231112	Antimicrobial activity of CdS quantum dots conjugated with Azadirachta indica and Zingiber officinale	Supervisor	Continue
3	Sadaf Yaseen	BS-BT	F2018231096	Antimicrobial activity of CdS quantum dots conjugated with Azadirachta indica and Zingiber officinale	Supervisor	Continue
4	Fatima Ramzan	BS-BT	F2018231023	Antimicrobial activity of CdS quantum dots	Supervisor	Continue

				conjugated with Azadirachta indica and Zingiber officinale		
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## EXTERNAL EXAMINAR:

1. Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan
2. University of Lahore- Lahore, Pakistan

## JOURNAL PUBLICATIONS:

1. Nadeem Sarwar, **Asma Irshad**, Development of a Tumor Diagnosis Application for Medical Practitioners using Transfer Learning” published in BioScientific Review (BSR) 2022;4(2): ISSN(P): 2663-4198 Vol 4 No 2 (2022) June 2022.
2. Nadeem Sarwar, **Asma Irshad**, [Prediction of breast cancer using machine learning techniques](#)” published in BioScientific Review (BSR) 2021;4(1):54–65 ISSN(P): 2663-4198 Vol 4 No 1 (2022) March 2022.
3. **Asma Irshad**, Nadeem Sarwar, Haleema Sadia, Muhammad Afzal, Mazhar Abbas, Sumaira Sharif, Saeeda Kalsoom and Aamna Syed, “In vitro Identification of CACNA1H in the 9th Exon of Childhood Absence Epilepsy (CAE) Patients Using BioEdit and ClustalW2” published in BioScientific Review (BSR) 2021;3(2):54–65 ISSN(P): 2663-4198 DOI: <https://doi.org/10.32350/BSR.0302.05> Published: 31 August 2021  
<https://journals.umt.edu.pk/index.php/BSR/article/view/1557>
4. Zeeshan Javed, Khushbukhat Khan, Jesús Herrera-Bravo, Sajid Naeem, Muhammad Javed Iqbal, Haleema Sadia, Qamar Raza Qadri, Shahid Raza, **Asma Irshad**, Ali Akbar, Željko Reiner, Ahmed Al-Harrasi, Ahmed Al-Rawahi, Dinara Satmbekova, Monica Butnariu, Iulia Cristina Bagiu, Radu Vasile Bagiu & Javad Sharifi-Rad " Genistein as a regulator of signaling pathways and microRNAs in different types of cancers" Cancer Cell Int 21, 388 (2021). <https://doi.org/10.1186/s12935-021-02091-8> IF: 5.722 ISSN: 1475-2867 Published: 21 July 2021
5. Iqbal, M.J., Javed, Z., Sadia, H. **Asma Irshad** Clinical applications of artificial intelligence and machine learning in cancer diagnosis: looking into the future. Cancer Cell Int 21, 270 (2021). <https://doi.org/10.1186/s12935-021-01981-1> IF: 5.722 ISSN: 1475-2867 Published: 21 May 2021
6. Muhammad Khurram, **Asma Irshad**, Muhammad Alamgir, Usman Ayub Awan, Haleema Sadia, “Epidemiological Survey of the Prevalence of HCV and HBV among the Factory Workers in the Periphery of Lahore” published in BioScientific Review (BSR) 2021;3(1):25–33 ISSN(P): 2663-4198 DOI: <https://doi.org/10.32350/BSR.0301.03> Published: 21 May 2021 <https://journals.umt.edu.pk/index.php/BSR/article/view/1074>
7. Javed, Zeeshan, Khushbukhat Khan, Amna Rasheed, Haleema Sadia, Muhammad Naeem Shahwani, **Asma Irshad**, Shahid Raza et al. "Targeting androgen receptor signaling with MicroRNAs and Curcumin: a promising therapeutic approach for Prostate Cancer Prevention and intervention." Cancer Cell International 21, no. 1 (2021): 1-13. IF (4.8) 26-Jan-2021
8. Zeeshan Javed, Muhammad Javed Iqbal, Amna Rasheed, Haleema Sadia, **Asma Irshad**, Wojciech Koch, Wirginia Kukula-Koch, Anna G³owniak-Lipa, Chi Shing Cho, Javad Sharifi-Rad, Shahid Raza. Regulation of Hedgehog Signaling by miRNAs and Nanoformulations: A Possible Therapeutic Solution for Colorectal Cancer. Frontiers in Oncology, ISSN2234-943X, 10 Nov, 2020. IF (4.848)
9. Khushbukhat Khan, Cristina Quispe, Zeeshan Javed, Muhammad Javed Iqbal, Shahid Raza, Asma Irshad, Bahare Salehi, feljko Reiner, JavadiSharif-Rad, HaleemaiSadia. Resveratrol, curcumin, paclitaxel and miRNAs mediated regulation of PI3K/Akt/mTOR pathway: go four better to treat bladder cancer. Cancer Cell International. (2020) 20:560, <https://doi.org/10.1186/s12935-020-01660-7>. 23 Nov, 2020 IF (4.175)
10. Obiwuru Chidera Rex, Ismail Sheik, Nadeem Sarwar, **Asma Irshad** “COVID-19: A Colossal Threat to Fundamental Rights of Humans”, Published in International Journal of Humanities & Social Science: Insights & Transformations Vol. 5, Issue 2 – 2020 ISSN: 2581-3587 (14-Oct-2020)

11. Haleema Sadia, Munir Ahmad Bhinder, **Asma Irshad**, Beenish Zahid, Sana Ashiq, Kausar Malik, Muhammad Riaz, Tariq Nadeem, Rais Ahmed, Kanwal Ashiq, Ali Akbar “**Determination of expression profile of p53 gene in different grades of breast cancer tissues by real time PCR**” Published in African Health Sciences, 2020 Sep;20(3):1273-1282 IF (0.842) ISSN: 1680-6905
12. Muhammad Umer Khan, Haleema Sadia, **Asma Irshad**, Atif Amin Baig, Sana Ashiq, Rozeena Sheikh, Sadia Roshan, Azam Ali, Shazia Shamas, Munir Ahmed Bhinder “**Detection, quantification and genotype distribution of HCV patients in Lahore, Pakistan by real-time PCR**” Published in African Health Sciences, 2020 Sep; 20(3): 1143–1152. 2020 Sep; 20(3): 1143–1152. IF (0.842) ISSN: 1680-6905
13. Maira Zahid, **Asma Irshad**, Sana Shakoor, Tahir Rehman Samiullah, Naila Shahid, Adnan Iqbal, Shehla J Akram, M Azam Ali, Shafique Ahmed, Tayyab Husnain, Ahmad Ali Shahid, Sana Tanveer and Abdul Qayyum Rao “ **Engineered Recombinant NDV-Fusion Protein and Its Polyclonal Antibodies Production**, Published in Pakistan Veterinary Journal, 40(4): 499-503. <http://dx.doi.org/10.29261/pakvetj/2020.034> ISSN 0253-8318 IF (1.360)
14. Arshad Abbas, Muhammad Arsalan, Bilal Abbas, Zeeshan Qamar, Sahar Aziz, Waheed Ali Panhwar, Safiullah Khan, Haleema Sadia, Shahid Raza ,**Asma Irshad**, Nadeem Sarwar, Irfan Irshad **The Declining Factors of Fish fauna of Baganat dam FR Bannu, Khyber Pakhtunkhwa, Pakistan.** Published in Bulletin of Environment, Pharmacology and Life Sciences, Vol 9[2] January 2020 : P.35-39 ISSN 2277-1808 IF (0.971)
15. Majid Khan, Waheed Ur Rehman , Ghani Ur Rehman, Zulqurnain, Zeeshan Shamim, Saffiullah Khan, **Asma Irshad**, Nadeem Sarwar, Irfan Irshad, Noushad Hussain, Zaib Un Nisa, Raheem shah, Muhammad Naeem, Muhammad Ayub Babar, Uzma Ghani ,Kamran Akhter, **Water Quality Parameters of River Kabul at District Charsadda**, Published in Bulletin of Environment, Pharmacology and Life Sciences, Vol 9[2] January 2020 : P. 60-65 IF (0.971)
16. Arshia Nazir, Kausar Malik, Husnain Qamar, Muhammad Hamza Basit, Ayesha Liaqat, Muhammad Shahid, Muhammad Islam Khan, Areeba Fatima, **Asma Irshad** and Haleema Sadia “**A review: Use of plant extracts and their phytochemical constituents to control antibiotic resistance in S. aureus**, Pure and Applied Biology (PAB), 9(1): 720-727, March, 2020 <http://dx.doi.org/10.19045/bspab.2020.90078> recognized by the HEC in "Y" category ISSN: 2304-2478
17. Haleema Sadia, **Asma Irshad**, Sana Ashiq, Rais Ahmed, Kanwal Ashiq, Tariq Nadeem, Ali Akbar, Shazia Shams, Sadia Roshan “**Prevalence of lifestyle and demographics related risk attributes among breast cancer patients in Pakistan**”. Int.(Lahore). 31(6), 851-855, 2019. <https://www.researchgate.net/publication/337674463>. ISSN 1013-5316. ISSN 1013-5316
18. **Asma Irshad**, Nadeem Sarwar, Haleema Sadia, Kausar Malik, Irum Javed, Abdullah Irshad, “**Comprehensive facts on dynamic antimicrobial properties of polysaccharides and biomolecules-silver nanoparticle conjugate** Published in International Journal of Biological Macromolecules, 145(2020) P(189-196) . ISSN: 0141-8130 IF (4.784) <https://doi.org/10.1016/j.ijbiomac.2019.12.089> 15 February 2020
19. Rais Ahmed, Muhammad Khalid Mansoor, Iftikhar Hussain, Muhammad Saqib, Muhammad Hammad Hussain, Amjad Islam Aqib, Haleema Sadia, Javed Muhammad, **Asma Irshad**, Kashif Prince, Muhammad Zain Saleem and Abdul Whab Manzoor **Abattoir based sero-survey of mycobacterium avium subspecies paratuberculosis in bovines in district Faisalabad-Pakistan**”. Pakistan Journal of Zoology. vol. 52(1), pp 115-119, 2020 DOI: <https://dx.doi.org/10.17582/journal.pjz/2020.52.1.115.119> ISSN. 0030-9923 IF (0.547) 15 February 2020
20. **Asma Irshad**, Nadeem Sarwar **A proactive model on innovative biomedical applications of gold nanoparticles**, Published in Applied Nanoscience Vol (10) issue 8. P 2453-2465 2019. ISSN 2190-5509 IF (3.198). <https://doi.org/10.1007/s13204-019-01165-4> 27 September 2019
21. Mazhar Abbas, Tariq Hussain, Muhammad Arshad, Abdur Rahman Ansari, **Asma Irshad**, Fida Hussain, Nasir Masood, Arif Nazir, Munawar Iqbal **Wound healing potential of Curcumin cross-linked chitosan/poly(vinyl alcohol)**. Published in International Journal of Biological Macromolecules. IJBIOMAC\_2019\_5438\_R1. Volume 140, 1 November 2019, Pages 871-876 ISSN: 0141-8130 IF: 4.784 DOI: <https://doi.org/10.1016/j.ijbiomac.2019.08.153>
22. **Asma Irshad**, Nadeem Sarwar, Haleema Sadia, Muhammad Riaz, Sumaira Sharif, Muhammad Shahid, Junaid Ali Khan “**Silver Nanoparticles: Synthesis and Characterization by using Glucans extracted from Pleurotus ostreatus**”. Published in Applied Nanoscience Vol (10) issue 8 June 2019. Pages (2453-2465 ) ISSN 2190-5509 IF: 3.198 DOI: <https://doi.org/10.1007/s13204-019-01103-4>

23. I.Irshad, A. ASLAM, M.Y. TIPU, K. ASHRAF, A. IRSHAD, S.F. REHMANI, I. AHMAD, S. RAO, T. BIBI and G. MUSTAFA "Pathogenesis and tissue tropism of NDV and H9N2 in single and mixed infections". Journal of Biological Regulator and Homeostatic agents. 2019 May-Jun.;33(3):929-933 . IF (1.397) ISSN:1724-6083
24. Tahira Batool, Zahed Mahmood, Muhammad Riaz, Muhammad Zahoor ul Hassan Dogar, Saba Irshad, Mian Anjum Murtaza, Khalid Mehmood, Ghulam Rasool, Asma Irshad, Haleema Sadia "Comparative study of nutritional status, minerals and heavy metals contents in tetra pack branded milk samples with fresh milk from selected milk producing animals. International Journal of Biosciences. 15(1), 161-167, July 2019. <http://dx.doi.org/10.12692/ijb/15.1.161-167>. ISI Index
25. Kausar Malik, Mujahid Hussain, Rida Sadaqat, Hassan Ahmad, Muhammad Hamza, Basit Shafiq Azam, Hasnain Qamar, Arshia Nazir, Haleema Sadia, Asma Arshad "Molecular Medicines for neutralization of *Clostridium botulinum* neurotoxin. International Journal of Biosciences. Vol. 14, No. 6, p. 78-90. 2019. ISI Index
26. Haleema Sadia, Rafia Batool, Rubina Mansoor, Bilal Qureshi, Sana Ashiq, Asma Irshad, Muhammad Riaz, Kanwal Ashiq "Investigation of liver function tests (LFTs) and renal function tests (RFTs) in pregnant women affected with hypertensive disorders of pregnancy (HDP). International Journal of Biosciences. Vol. 14, No. 5, p. 86-94. 2019. ISI index
27. A.Irshad, S.Sharif, M.Riaz and F. Anjum An insight into nutritional profile of selected *Pleurotus* species. Journal of Biological Regulator and Homeostatic agents. Jan-Feb 2018;32(1):107-113. IF (1.397) ISSN:1724-6083
28. S. Sharif, S. RASHID, A. ATTA, A. IRSHAD, M. RIAZ, M. SHAHID "Phenolic, Tocopherols and fatty acid profiling of wild and commercial mushrooms from Pakistan. Journal of Biological Regulator and Homeostatic agents. 32(4):863-867 (2018). IF (1.397) Jul-Aug 2018
29. Abida Kauser, Syed Muhammad Ali Shah, Naeem Iqbal, Mian Anjum Murtaza,Iqbal Hussain, Asma Irshad , Suhaila Nasir, Muhammad Akram, Naveed Munir, Muhammad Riaz "In vitro antioxidant and cytotoxic potential of methanolic extracts of selected indigenous medicinal plants. Progress in Nutrition. Vol. 20, N. 4: 706-712 (2018). DOI: 10.23751/pn.v20i4.7523. ISSN: 1129-8723. IF (0.323)
30. I.Irshad, A. ASLAM, K. ASHRAF, B. ZAHID and A. IRSHAD "Efficacy of commercial vaccines against the prevalent strains of Newcastle Disease and Avian Influenza (H9N2) infections in broilers in Pakistan. Journal of Biological Regulator and Homeostatic agents. 32(6):1545-1549. IF (1.397)
31. Hussain. F, Irshad. A, Shahid. M. "Study of selected therapeutic potentials of *Momordica charantia* fruit. Journal of Biological Regulator and Homeostatic agents. Vol. 32, no. 4, 859-862 (2018). IF (1.397)
32. A.Irshad, M.Shahid, M. Asghar, J.A.Khan "Antioxidant potential analysis of *P. ostreatus*, *P. sajor-caju*, *P. sapidus* and *P. columbinus*. Journal of Biological Regulator and Homeostatic agents. Vol. 31, no. 3, 705-709 (2017). IF (1.397)

#### AUTHOR OF ABSTRACTS IN INTERNATIONAL CONFERENCE IN ABROAD:

1. Muhammad Riaz, Fatima Yousaf, Muhammad Shahid, Hina Fatima, Asma Irshad. Fourth World Congress of Reproductive Biology (P5-14) on: *Study of fertility enhancing potential of Anacyclus pyrethrum roots in male albino rats* held on September 27-29, 2017 at Okinawa Convention Centre, Okinawa, Japan.
2. Asma Irshad, Nadeem Sarwar, Abdullah Irshad "In vitro antimicrobial analysis of Green Matrix Stabilized Silver Nanoparticles" Published in Middle East Pharmacy and Pharmaceutical Conference, September 24-25, 2018 at Abu Dhabi, UAE.
3. Muhammad Riaz, Zahed Mahmood, Irum Javed, Asma Irshad, Haleema Sadia, "Identification of MDR strains of *Mycobacterium tuberculosis* through PCR-RFLP" ERCICRLSH1803072, 4th International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 13-14 Oct, 2018, Kuala Lumpur, Malaysia.

#### AUTHOR OF ABSTRACTS IN LOCAL NATIONAL/INTERNATIONAL CONFERENCE:

1. Asma Irshad, Nadeem Sarwar, Haleema Sadia Muhammad Riaz, Sumaira Sharif , Muhammad Shahid and Junaid Ali Khan. "Silver nano-particles: synthesisand characterizationby using Glucans Extracted from *Pleurotus ostreatus*"

published in proceeding of 13<sup>th</sup> International Biennal Conference, Pakistan Society of Microbiology (TIBC-2021), Department of Microbiology, Government College University, Faisalabad, Punjab, Pakistan held on

2. Junaid Nasir, Alishba Ahsan, Nadeem Sarwar, Wajid Rafique, Sameer Malik, Syed Zeeshan Hussain Shah, Sarousha Nasir, **Asma Irshad “Classification and Prediction Analysis of Diseases and other Datasets using Machine Learning**, Published in proceeding of International Springer Conference Intelligent Technologies and Applications. INTAP 2019. [https://doi.org/10.1007/978-981-15-5232-8\\_37](https://doi.org/10.1007/978-981-15-5232-8_37)
3. Nadeem Sarwar, Junaid Nasir, Syed Zeeshan Hussain Shah, Alishba Ahsan, Sameer Malik, Sarousha Nasir, Muhammad Zafar Iqbal Karmani, **Asma Irshad “Prediction and Analysis of SUN SHOWER using Machine Learning**, Published in proceeding of International Springer Conference Intelligent Technologies and Applications. INTAP 2019. [https://doi.org/10.1007/978-981-15-5232-8\\_16](https://doi.org/10.1007/978-981-15-5232-8_16)
4. Wajid Rafique, Maqbool Khan, Nadeem Sarwar, Muhammad Sohail, and **Asma Irshad “A Graph Theory based Method to Extract Social Structure in the Society”** Proceedings of Intelligent Technologies and Applications. INTAP 2018. Communications in Computer and Information Science, vol 932. Springer, Singapore (pp 437-448) Springer DOI: [https://doi.org/10.1007/978-981-13-6052-7\\_38](https://doi.org/10.1007/978-981-13-6052-7_38) Online ISBN: 978-981-13-6052-7
5. Nadeem Sarwar, Faheem Nawaz Khan, Adnan Ali, Hamaad Rafique, Imtiaz Hussain, and **Asma Irshad “Microchip with Advance Human Monitoring technique And RFTS”** Proceedings of Intelligent Technologies and Applications. INTAP 2018. Communications in Computer and Information Science, vol 932. Springer, Singapore pp 560-570, Springer DOI: [https://doi.org/10.1007/978-981-13-6052-7\\_48](https://doi.org/10.1007/978-981-13-6052-7_48) Online ISBN: 978-981-13-6052-7
6. Haleema Sadia, Saba Manzoor, **Asma Irshad**, Tariq Nadeem “**The gene expression and mutational studies of P21 inhibitor of cell cycle in progression of canine mammary and mast cell tumor**” published in First national conference on entrepreneurship avenues in biological sciences (NCEB 2020) held on January 8-9, 2020 at Department of Biology, Lahore Garrison University, Lahore-Pakistan.
7. “**Oral health and gingivitis prevalence in urban rural areas of tehsil Takht Bhai district Mardan KPK Pakistan**” published in First national conference on entrepreneurship avenues in biological sciences (NCEB 2020) held on January 8-9, 2020 at Department of Biology, Lahore Garrison University, Lahore-Pakistan.
8. “**Preoperative anxiety level among patients undergoing elective general surgery in district head quarter hospital (DHQ) Timergara**” published in First national conference on entrepreneurship avenues in biological sciences (NCEB 2020) held on January 8-9, 2020 at Department of Biology, Lahore Garrison University, Lahore-Pakistan.
9. Haleema Sadia, Rozeena Sheikh, **Asma Irshad**, Rais Ahmed, Munir Ahmed BVhinder, Muhammad Awais, Kausar Malik, Muhammad Naeem Shahwnaz, Benish Zahid “**Evaluation of real time PCR based assay for diagnosis of canine transmissible venereal tumours in Pakistan**”, Published in Third National Conference on Emerging Trends in Bioinformatics and Biosciences, October 03–05 2019, Hazara University Mansehra, KP, Pakistan.
10. **Asma Irshad**, Muhamamd Shahid, Mazhar Abbas, Nighat Zia-ud-Din “**Hepatoprotective Effect of Glucan Coated Silver Nano-Particles in Albino Rats**” Published in 1<sup>st</sup> International Conference “Future Med-2018” held on January 5-7, 2018 at Faculty of Medical & Health Sciences, Sargodha-Pakistan.
11. **Asma Irshad**, Nadeem Sarwar, Haleema Sadia and Fatima Yousaf “**The Dynamic Evaluation of Biological and Pharmacological Potentials of Pleurotus Ostreatus, Pleurotus Sajor-Caju, Pleurotus Sapidus and Pleurotus Columbinus**” Published in Second National Conference on Emerging Trends in Bioinformatics and Biosciences, August 09–11 2018, Hazara University Mansehra, KP, Pakistan.
12. Haleema Sadia, Munir Bhindher, **Asma Irshad**, Muhammad Riaz, Muhammad Mushtaq, Abrar Hussain, Jamil Ahmad, , Shakeela Daud, Naeem Shahwani and Beenish Zahid “**Determination of Expression Profile of P53 Gene in Different Grades of Breast Cancer Tissues By Real Time PCR**” Published in Second National Conference on Emerging Trends in Bioinformatics and Biosciences, August 09–11 2018, Hazara University Mansehra, KP, Pakistan.

13. "Green Matrix Stabilized Silver Nanoparticles: A dynamic In vitro antimicrobial compound" Published in 1<sup>st</sup> International Conference On Nanoscience and Nanotechnology (ICONN 2018) held on 1<sup>st</sup>-2<sup>nd</sup> November 2018 at SCME, NUST, Islamabad-Pakistan.
  14. Asma Irshad, Muhammad Shahid, Muhammad Riaz, Zinayyera Subhani "The Pro-active Bio-pharmaceutical Potential of *Pleurotus species*" published in ICBBB-2018, December 09-11, 2018 at University of agriculture Faisalabad.
  15. Muhammad Riaz, Fatima Yousaf, Muhammad Shahid, Asma Irshad, Ghulam Rasool "Study of the Androgenic Potential of *Anacyclus pyrethrum* Roots Extracts in Adult Male Rats" published in ICBBB-2018, December 09-11, 2018 at University of agriculture Faisalabad.
  16. Nelofer Bugti, Imran Ali Sani, Asma Irshad, Muhammad Riaz and Haleema Sadia "Demographic Distribution of Viral Hepatitis in the Patients of District Quetta, Pakistan" Published in 3<sup>rd</sup> International Symposium on "Advances in Molecular Biology of Plants and Health Sciences" & CEMB alumni meet" held on December 19-21, 2018 at National Centre of Excellence in Molecular Biology, University of The Punjab Lahore-Pakistan.
  17. Haleema Sadia, Munir Ahmad Bhinder, Muhammad Naeem Shahwani, Asma Irshad, Muhammad Riaz, Kausar Malik "Next Generation Sequencing Analysis of Tp53 Gene in Breast Cancer Patients of Punjabi Population", MMDR-7
  18. Haleema Sadia, Hassan Tayyab, Asma Irshad, Muhammad Riaz. Factors affecting the rate of Insomnia Published at 2<sup>nd</sup> International Conference Future MED-2019 August 22-23, 2019
  19. Haleema Sadia, Kamal Khan, Asma Irshad, Muhammad Riaz. Demographic Distribution of Diabetic Patients of Sibi, Balochistan Published at 2<sup>nd</sup> International Conference Future MED-2019 August 22-23, 2019.

## **Book Chapter:**

- Chapter 21 Titled "Interaction of carbon nanotubes with rhizosphere microbial communities" Book titled "[Carbon Nanomaterials for Agri-food and Environmental Application](#)" Publisher name: ELSEVIER, Amsterdam, Netherlands ISBN: 978-0-12-819786-8

## **ARTICLE PUBLISHED IN NATIONAL AND INTERNATIONAL NEWSPAPERS FOR PUBLIC AWARENESS:**

- One article for public awareness in “**The Daily SAMA**”
  - One article for public awareness in International The News “**Corona: Broiler safe for use**”
  - One article for public awareness in APNN News (Arz-e-Pakistan News Network ) “**Post COVID Anxiety in Health Care Professionals**”

## **INTERNATIONAL SOCIETY MEMBERSHIP:**

- American Society of Microbiology
  - Royal Society of Chemistry Membership ID 721144

**NATIONAL/INTERNATIONAL SYMPOSIA/WORKSHOPS/CONFERENCES CONDUCTED:**

- **Role of EDR in MICROBES: Their Super striker from synthetic and Natural sources”** at University of Management and Technology, Lahore-Pakistan, on 07 April 2022. *Chief Organizer*
  - **Web of Science Conference”** at Centre of Excellence in Molecular Biology University of the Punjab, Lahore-Pakistan, on 11 March 2019. *Organizer*

- “3<sup>rd</sup> International Symposium on “**Advances in Molecular Biology of Plants and Health Sciences” & CEMB alumni meet**” at National Centre of Excellence in Molecular Biology, University of The Punjab Lahore-Pakistan, on December 19-21, 2018. *Organizer*

## SYMPOSIUMS/WORKSHOPS/CONFERENCES ATTENDED:

- International workshop and Exhibition on “**Research Commercialization: Challenges and Opportunities**” organized by COMSTECH, Pakistan on June 14<sup>th</sup> -15<sup>th</sup>, 2022.
- Online international symposium on “**Emerging challenges in Academic-Industrial Linkages**” organized by ORIC Riphah International University, Pakistan on June 23, 2022.
- 6<sup>th</sup> International conference on "**Boost your Publications through PubMed and Google Scholar**" conducted by Shalimar Medical and Dental College Lahore, Pakistan **Jan 22, 2022.**
- One day educational webinar “**Impact on Quality of Computing Education during COVID-19 and improvement Strategies**” organized by National Computing Education Accreditation Council, Higher Education Commission on **March 30, 2021**.
- One day educational webinar “**Essential Academic Documents to Ensure Career Success**” organized by LetPub Learning Nexus on December 15, 2020.
- 3<sup>rd</sup> international Online symposium on “**Digital Teaching and Assessment: Challenges for students**” organized by Riphah Academy of Research &Education, Riphah International University-Pakistan on November 26, 2020.
- Online international symposium on “**Mental Health and Stress management**” organized by Department of Molecular Biology, Virtual University of Pakistan on 15 August, 2020.
- One Day Webinar and Q&A session entitled "**Urinary NMR diagnostics for inborn error of metabolism using rule-based interpretation (for research use only)**" organized by Select Science Limited, North America on 2nd Oct, 2020
- One Day Webinar "**COVID-19: Pandemic scenario and health challenges**" organized by Department of Biotechnology, Virtual University of Pakistan on 21st July 2020
- Participated in "**8th Invention to Innovation Summit**" held on 02-03 April 2019, Centre of Excellence in Molecular Biology University of the Punjab, Lahore-Pakistan.
- Participated in **International conference on “Trans-Boundary Diseases of Veterinary And Public Health”** held on 4-6 October 2018, at University of Veterinary and Animal Sciences, Lahore-Pakistan
- Participated in **1<sup>st</sup> International symposium on “Sensors and Biosensors”** held on 11 September 2018, Interdisciplinary Research Centre in Biomedical Materials, COMSATS University Islamabad, Lahore(Campus)-Pakistan

- Paper presentation in **Second National conference on "Emerging trends in Bioinformatics and Biosciences"** held on 09-11 August 2018, by Department of Bioinformatics, Hazara University, Mansahra, KP-Pakistan.
- Participated in National symposium on "**Risk Assessment of genetically modified (GM) crops**" held on 20 July 2018, Centre of Excellence in Molecular Biology University of the Punjab, Lahore-Pakistan.
- Poster presentation in **1<sup>st</sup> International Conference " Future Med-2018"** held on 05-07 January, 2018, Faculty of Medical & Health Sciences, Sargodha-Pakistan
- Participated in "**16th Shaukat Khanum Cancer symposium**" held on 10-12 November 2017, by Shaukat Khanum Memorial Trust, Lahore-Pakistan.
- Participated in National symposium on "**Emerging trends in the extraction of plant Bio-actives for Nutra-pharmaceutical Developments**" held on 1-2 November, 2017, by Department of Chemistry, University of Sargodha, Sargodha-Pakistan.
- Participated in National conference on "**Emerging trends in Bioinformatics and Biosciences**" held on 20-22 July, 2017, by Department of Bioinformatics, Hazara University, Mansahra, KP-Pakistan.
- Participated in Biennial conference of Pakistan society of Biochemistry and Molecular Biology on "**Recent Advances and Challenges in Molecular Biology, Biochemistry and Biotechnology**" held on 25-27 August, 2016, by Center of Advance Drug Research, COMSATS Institute of Information Technology, Abbottabad-Pakistan.
- Participated in International conference of Biochemistry, Biotechnology and Biomaterials on "**Biochemistry for better food, health and environment in the developing world**" held on 22-24 February, 2016 by University of Agriculture Faisalabad-Pakistan.
- Participated in AEME Conference on "**Curricular Reforms: Patient centered Curriculum**" held on 14 November, 2015, by Punjab Medical College Faisalabad-Pakistan.
- Attended one day symposium on "**Carbohydrate biotechnology-The science for value addition.** 29<sup>th</sup> October 2015. Organized by National Institute of Biology and Genetic Engineering (NIBGI), Faisalabad-Pakistan.
- Participated in joint **PAP/RCPPath/AMP conference on molecular pathology**, 24<sup>th</sup>-26<sup>th</sup> November, 2014, The royal college of Pathologists, Lahore-Pakistan.
- Participated in **National workshop on Recombinant Technologies in Vaccine development**, April 11, 2013, Institute of Biochemistry and Biotechnology, UVAS Lahore-Pakistan.

## TRAININGS:

- Received hand on training workshop on "**Protein Structure Analysis & Computer aid Drug Designing**" held on 28-29 September 2018, Centre of Excellence in Molecular Biology University of the Punjab, Lahore-Pakistan.
- Received hand on training workshop on "**CRISPR/Cas Genome Editing Technology**" held on 29-30 April 2019, Centre of Excellence in Molecular Biology University of the Punjab, Lahore-Pakistan.
- One Day Training on "**Transformative Learning**" conducted by Institute of Knowledge and Leadership, UMT, Lahore on June 13, 2020.
- One Day Training on "**ProQuest Ebook Central Advanced Training**" conducted by ProQuest Education in partnership with Higher Education Commission on September 23, 2020.
- One Day Training on "**HEC Digital Library collections for your next scholarly research**" conducted by ProQuest Education in partnership with Higher Education Commission on October 14, 2020.
- One Day Training on "**How to utilize ProQuest Journal Dissertation and Varied content types in Teaching and Research**" conducted by ProQuest Education in partnership with Higher Education Commission on October 19, 2020.
- One Day Training on "**How to utilize ProQuest Ebook Collection in Teaching and Research**" conducted by ProQuest Education in partnership with Higher Education Commission on October 20, 2020.
- One Day Training on "**Five tips of getting published: Maximize your chance to get your paper accepted in Academic Journals**" conducted by ProQuest Education in partnership with Higher Education Commission on October 27, 2020.
- One Day Training on "**What does a post-Covid economy mean for work and study**" conducted by ProQuest and The Economist Intelligence Unit November 19, 2020.
- One Day Training on "**How to Manage Your references Using RefWorks**" conducted by ProQuest and The Economist Intelligence Unit December 1, 2020.
- One Day Training on "**ProQuest's Introduction to Publishing in Academic Journals- Part 1**" conducted by ProQuest and The Economist Intelligence Unit December 08, 2020.
- One Day Training on "**ProQuest's Introduction to Publishing in Academic Journals- Part 2**" conducted by ProQuest and The Economist Intelligence Unit December 15, 2020.

- One Day Training on "**Get the necessary knowledge to maximize your chance for your paper to get accepted in academic journals-Part 1**" conducted by ProQuest and The Economist Intelligence Unit **March 16, 2021**.
- One Day Training on "**Get the necessary knowledge to maximize your chance for your paper to get accepted in academic journals-Part 2**" conducted by ProQuest and The Economist Intelligence Unit **March 23, 2021**.
- Four Day Training on "**Undergraduate Faculty Training STEM Education in Pakistan**" Organized by Virtual University of Pakistan **March 14-18, 2022**.
- One Day Training on "**Improving battery performance with cutting edge 3D Chemistry modeling & Simulation**" conducted by Dassault Systems **April 27, 2022**.
- One Day Training on "**Method Robustness and Transferability for Modern Size-Exclusion Methods-ERU**" conducted by eLearning phenomenex **Jun 21, 2022**.
- One Day Training on "**HPLC Column Care and Troubleshooting- EUR**" conducted by eLearning phenomenex **Jun 23, 2022**.
- One Day Training on "**Broadband benchtop NMR spectroscopy: its more than just protons**" conducted by chemistry world webinars **Jun 29, 2022**.

## **ONLINE COURSES**

- One-month "**Online Teaching Level 1**" by National Academy of Higher Education, Higher Education Commission from **20 March 2021 to 10 April 2021**.

## **EXTRACURRICULAR ACTIVITIES**

- **Chief Organizer** of "**CEMB Sports Gala 2019 (Girls)**" held on 18-23 March 2019, Centre of Excellence in Molecular Biology University of the Punjab, Lahore-Pakistan.

## **COMPUTER & SOFTWARE SKILLS:**

- **Operating System**  
MS Windows 7, 8/8.1Vista, XP, 2003 server, 98, MS DOS
- **Application Programs**  
Business applications software, MS Word, Power Point, MS Front Page, Excel, MS Access

## **REFERENCES:**

**Dr. Muhammad Shahid**, Associate Professor,  
Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan, Email: mshahiduaf@yahoo.com

**Dr. Muhammad Asgher**, Professor/ Dean  
Faculty of Sciences, University of Agriculture, Faisalabad, Pakistan Email: mabajwpka@yahoo.com

**Dr. Khalil-ru-rahman**, Professor/ Chairman  
Department of Biochemistry, University of Agriculture, Faisalabad, Pakistan Email: khaliluaf@yahoo.com