

Aneela Yasmeen PhD

Assistant Professor

Centre of Excellence in Molecular Biology (CEMB)
University of the Punjab, Lahore. Pakistan

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Postal Address: Centre of Excellence in Molecular Biology, 87-West Canal Bank Road, Thokar Niaz, Baig, Lahore-53700, Pakistan.

Academic Qualification

- **PhD (2022):** CEMB, University of the Punjab, Lahore
Thesis Title: Cas9-mediated gene knock down of Vacuolar Invertase (*VInv*) gene of *Solanum tuberosum* to reduce tuber sweetening during cold storage
- **MPhil (2014):** University of the Punjab, Lahore: **Division:** 1st
Thesis Title: Transformation of Cotton (*Gossypium hirsutum*) with Amplicon Based Small Interfering RNA Targeting CLCuV”
- **MSc (2007):** University of the Punjab, Lahore: **Division:** 1st
Thesis Title: Construction and standardization of glucose oxidase based visual test strip for estimation of serum glucose level.”

Present Positions

- **Assistant Professor;** Centre of Excellence in Molecular Biology (CEMB); University of the Punjab, Lahore. Pakistan (Since November 2023 till date)
- **Chairperson CEMB Journal Club Committee** (Since October 2023 till date)
- **Founder & General Secretary;** Gull’s Association-Pakistan
- **Events Coordinator;** Congress of Molecular Biology (CMB)

Past Position

- **Research Officer cum Lecturer (BPS 18);** Centre of Excellence in Molecular Biology (CEMB); University of the Punjab, Lahore. Pakistan (January 2009 till October 2023)
- **Research Officer (BPS 17);** Centre of Excellence in Molecular Biology (CEMB); University of the Punjab, Lahore. Pakistan (April 2008-December 2009)
- **Member Board of Faculty of Life Sciences,** University of the Punjab (29-06-2021 to 28-06-2023)
- **Student Coordinator CEMB** (Feb 03, 2022-April 18, 2022)
- **Assistant Superintendent** of Girls Hostel No.05, Punjab University Lahore (Feb 2010-Sep 2019)
- **Focal Person Hostel Affairs,** Centre of Excellence in Molecular Biology, University of the Punjab, Lahore (October 2015-September 2020)
- **Member CEMB Journal Club** (Feb 2011-Feb 2019)

Administrative Responsibilities

- **Member QEC CEMB,** University of the Punjab, Lahore since 2019
- **Member Events Organizing Committee CEMB**

External Examiner

- **External examiner** for viva voice exams 2017 at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore

International Research Work Experience

- Oct. 2017-Feb. 2018: Mevalana Exchange Scholar, Omer Halisdemir Univeristy, Nigde, Turkey
- January 15-22,2019: Global Young Scientists Summit (GYSS) 2019

Grants

Research Grants	Title	Role	Funding Agency	Duration	Amount (PKR Million)
Completed					
1.	Training Program for Bolstering Best Practices of Biological Waste Management in Laboratories	PI	Health Security Partners (HSP)-USA	2018-19	USD: 5,401.00
Ongoing					
1.	Development of <i>Verticillium Wilt</i> and Abiotic stress resistant cotton A collaborative project with Azerbaijan	Scientist	Islamic Development Bank (IDB).	2023-2026	USD: 150,000
2.	Development of climate smart cotton by editing Arginase (<i>GhArg</i>) genes using genome editing (CRISPR/Cas) tools.	Scientist	(LCF HEC)	2022-2024	Rs. Million 21.50 CEMB PART Rs. Million 3.8
3.	Development of Climate Resilient cotton resistant to drought and heat through editing of negative regulators by using Cpf1 multiplex system.	Scientist	NSLP funded by PSF	2023-2026	Rs. Million 6.00

Patents

- Patent applied: CRISPR based genome editing approach to reduce Vacuolar Invertase during cold storage of potatoes via Application No: 221/2022 filed on 30th March 2022

Supervision

Sr. No	Role	Student name	Students Institute	Title of thesis	Program	Session
Completed						
1.	Supervisor II	Saad Tahir	CEMB	CRISPR/Cas12 mediated knockout of VdATP and Gh14-3 gene to impart resistance against <i>verticillium wilt</i> in <i>Gossypium hirsutum</i>	M. Phil	2021-23
2.	Co-Supervisor	Muhammad Awais	Department of Botany, University of Education, Lahore	Systematics of some basidiomycetous micro fungi from selected areas of himalayan moist temperate forests of Pakistan	M. Phil	2020-22
2.	Co-Supervisor	Amna Jamshed	Department of Botany, University of Education, Lahore	Characterization of gilled mushrooms from Kabal tehsil Swat, district Khyber Pakhtunkhwa based on morpho-Anatomical and nrDNA data	M. Phil	2020-22
3.	Co-Supervisor	Javeria Ahmad	Department of Botany, University of Education, Lahore	Molecular phylogeny and molecular characterization of some macro fungi from selected coniferous forests in Pakistan	M. Phil	2020-22
4.	Co-Supervisor	Samia Shafaqat	Department of Botany, University of Education, Lahore	Systematics of some Basidiomycetous Macro fungi from Behaa valley Swat, district Khyber Pakhtunkhwa, Pakistan	M. Phil	2019-21
5.	Co-Supervisor	Saima Khalid	Department of Botany, University of Education, Lahore	nrDNA-ITS based detection of some mushrooms from Swat, district Khyber Pakhtunkhwa, Pakistan	M. Phil	2019-21
Ongoing						
1	Supervisor	Pashma Nawaz	CEMB	Genome editing of potato plants using CRISPR / Cas9 to improve disease resistance	M. Phil	2022-24

Honors/Awards/Scholarships

- **Certificate of Appreciation** by Worthy Vice Chancellor University of the Punjab, Lahore for contribution in development of miraculous cotton varieties for betterment of farming community in Pakistan at CEMB on August 16, 2023
- **Best Oral Presenter Award** for presenting work at international conference on Recent Approaches in Plant Sciences (RAPS-2023) held at University of Education on May 4-5, 2023
- **Incentive Award 2021**
- **Performance Evaluation Award 2020**
- **Incentive Award 2020**
- **Performance Evaluation Award 2019**
- **Incentive Award 2019**
- **Performance Evaluation Award 2018**
- **Letter of Appreciation** by Director CEMB for serving as CEMB Journal Club member since 2010-2019
- **Letter of Appreciation** by ORIC Punjab University for organizing CEMB Technology Stall at 7th invention to innovation summit (2018)
- **Mevlana Exchange Scholarship**, Omer Halisdemir University, Nigde, Turkey (2017-18)
- **Letter of Appreciation** by Director CEMB on organizing 2nd International Symposium on Advances in Molecular Biology of Plants and Health Sciences, held at CEMB, 20-23, November 2017
- **Letter of Appreciation** by Muhammad Nawaz Sharif University of Agriculture, Multan for organizing Biosafety training workshop for young scientists at university (2015)
- **First Position in** Coral Draw and Graphic designing Course (2014)
- **First position in** Communication Skills Development Course (2011)
- Obtained 81 marks in GAT General (2009)
- **First position** in B. Sc at district level in Bhakkar (2005)
- **Certificate of Full attendance** in Matriculation. (1999)

Trainings/Courses

- Biosafety: Train the Trainer Workshop (ToT) workshop held at Islamabad (26-30th March, 2018)
- International Workshop on Genomics and Genome Editing held at FCU (May 24-27, 2016)
- Web and Graphic Designing securing A Grade from Institute of Geology, University of the Punjab, Lahore (24 February to 22 April 2014).
- Training on Leica Microsystems on cytovision system for FISH and Karyotyping by Medilaser (December 26-30, 2011)

Publications (IF: 54; Citations 186)

Articles

International

1. Sania Naeem, Naila Shahid, Mohsin Ahmad Khan, Saira Azam, Muhammad Saad Bhutta, Ayesha Latif, **Aneela Yasmeen**, Tahir Rehman Sami Ullah, Abdul Qayyum Rao, Kausar Malik (2023) Engineering of *Chlamydomonas reinhardtii* chloroplast for mucosal immunotherapeutic against Newcastle disease virus. Journal of Applied Phycology <https://doi.org/10.1007/s10811-023-03100-1> **IF: 2.9**
2. Shakoor, S., Rao A Q*, Ajmal Sara, **Yasmeen A**, Khan MAU, Sadaqat S., Ashraf NM, Wolter F, Pacher M, and Husnain T (2023) “Multiplex Cas9 based excision of CLCuV β -satellite and DNAA revealed reduction of viral load with asymptomatic cotton plants”: *Planta*. 258(4):79. doi: 10.1007/s00425-023-04233-w. **IF: 4.3**
3. Awais M; Rao AQ, Sadaqat S, Yaqoob A, Bhutta MS, Shakoor S, **Yasmeen A**, Ajmal S, Hamed G, Khan KA, Bakhsh A. (2023). The Regulatory Landscape of Genetically Engineered (GE) Crops in Pakistan” *Food and Energy Security*. (Accepted) **IF: 5.0**
4. S. Tanveer, H. Ayesha Malik, N. Shahid, I. B. Salis, N. Ahmed, A. Latif, **A. Yasmeen**, S. Hassan, A. Bakhsh, A. Qayyum Rao, (2023) Production of Proinflammatory cytokines by expressing Newcastle disease vaccine candidates in corn, *Journal of King Saud University - Science* **35 (3): 102537** doi: <https://doi.org/10.1016/j.jksus.2022.102537> **IF: 3.8**
5. **Yasmeen A**, Bakhsh A, Ajmal S, Mohammad M, Sadaqat S, Awais M, Azam S, Latif A, Shahid N and Rao A Q* (2023) CRISPR/Cas9 mediated genome editing in diploid and tetraploid potatoes” *Acta Physiol Plant* **45**, 32. <https://doi.org/10.1007/s11738-022-03513-4> **IF: 2.6**
6. Latif, A., Azam, S., Shahid, N. Javed MR, Haider Z, **Yasmeen A**, Sadaqat S, Shad M, Husnain T and Rao AQ (2022) Overexpression of the *AGL42* gene in cotton delayed leaf senescence through downregulation of NAC transcription factors. *Sci Rep* 12, 21093 (2022). <https://doi.org/10.1038/s41598-022-25640-1> **IF:4. 6**
7. **Yasmeen A**, Shakoor, S, Azam S, Bakhsh A, Shahid N, Latif A, Shahid A A, Husnain T, and Rao A Q* (2022) “CRISPR/Cas-mediated knockdown of vacuolar invertase gene expression lowers the cold-induced sweetening in potatoes”: *Planta* 256(6):107 <https://doi.org/10.1007/s00425-022-04022-x> **IF: 4.3**
8. Hafsa Amat-ur-Rasool, Ayesha Latif, **Aneela Yasmeen**, Naila Shahid, Saira Azam, Aftab Bashir, Tayyab Husnain, Abdul Qayyum Rao, Wayne G. Carter, and Ahmad Ali Shahid (2022) “Enhanced expression of plasma membrane intrinsic protein 2 improves cotton fiber length in *Gossypium arboreum*” *Molecular Biology Reports* ;49(6):5419-5426. doi: 10.1007/s11033-022-07138-1. **IF 2.8**
9. Sadaqat S, Usmaan M, Mizna, Shakoor S, Hameed R, Ajmal S, **Yaqoob A**, Muhammad M, **Babar M**, Ishaq A, Irfan M, Noor ul Ain, Awais M, Saad M, Raouf A, Imtiaz M, Shahid N, Latif A, Yasmeen A, Azam S, **Samiullah TR**, Rao AQ, Shahid AA (2021) Transformation and expression of gene in microalgae: from tools to applications. *Agrobiolgy Records*
10. Shad M, **Yasmeen A**, Azam S, Bakhsh A, Latif A, Shahid N, Salah Ud Din, Sadaqat S, Rao AQ, Shahid AA. (2021) Enhancing the resilience of transgenic cotton for insect resistance. *Mol Biol Rep*. doi: 10.1007/s11033-021-06972-z. Epub ahead of print. PMID: 34839448 **IF 2.8**
11. Jabeen, S., Arshad, S., Bashir, H., Hamid, M., **Yasmeen, A.**, & Khalid, A. N. (2021). *Chlorophyllum hortense* newly recorded, and *C. molybdites* confirmed from Pakistan. *Mycotaxon*, 136 (2), 497-509. **IF 1**

12. Jabeen, S., Waseem, B., Tuba, Hamid, M., & Yasmeen, A. (2020), First record of *Leucoagaricus nivalis* from Pakistan” Bangladesh Journal of Plant taxonomy 27(2):453-459 DOI: <https://doi.org/10.3329/bjpt.v27i2.50684> IF 0.9
13. Naila Shahid, Tahir Rehman Samiullah, Sana Shakoor, AyeshaLatif, Aneela Yasmeen, Saira Azam, Ahmad Ali Shahid, Tayyab Husnain and Abdul Qayyum Rao (2020) Early Stage Development of a Newcastle Disease Vaccine Candidate in Corn Frontiers in Veterinary Science Volume 7 | Article 499 IF: 3.2
14. Ambreen Gul , Ghulam Hussain, Adnan Iqbal, Abdul Qayyum Rao, Salah ud Din, Aneela Yasmeen, Naila Shahid, AmmaraAhad, Ayesha Latif1, Saira Azam, Tahir Rehman Samiullah, Samina Hassan, Ahmad Ali Shahid & Tayyab Husnain (2020) Constitutive expression of Asparaginase in Gossypium hirsutum triggers insecticidal activity against Bemisia tabaci. Scientific Reports 10:8958| <https://doi.org/10.1038/s41598-020-65249-w> IF: 4.6
15. A. Bakhsh1, S. D. Dangol, M. Naeem, M. H. Azimi and A. Yasmeen, (2020) Genetic Approaches for Engineering Biotic Stress Resistance In Potato (*Solanum tuberosum* L.) The Journal of Animal and Plant Sciences. 30(1): 1-17 IF:0.7
16. Ayesha Latif, Mukhtar Ahmed, Sidra Akhtar, Ammara Ahad, Adnan Iqbal, Amina Yaqoob, Ayesha Imran, Muhammad Usmaan, Naila Shahid, Saira Azam, **Aneela Yasmeen**, Tahir Rehman Samiullah, Salah ud din, Ambreen Gul, Sana Shakoor, Maria Khawer, Sara Ajmal, Muhammad Azam Ali, Samina Hassan, Mohsin Shad, Sahar Sadaqat, Maira Zahid, Ahmad Ali Shahid, Idrees Ahmad Nasir, Abdul Qayyum Rao and Tayyab Husnain (2019) “Mini-Review Cotton Fibre Quality Management for Sustainable Textile Industry” The ICAC Recorder, 37(3)September 2019:P22-27
17. Mahrukh Zubair, Ayesha Latif, Abdul Qayyum Rao, Saira Azam, Naila Shahid, Tahir Rehman Samiullah, **Aneela Yasmeen**, Ahmad Ali Shahid, Idrees Ahmad Nasir, Tayyab Husnain (2019) A Combinational Approach of Enhanced Methanol Production and Double Bt Genes for Broad Spectrum Insect Resistance in Transgenic Cotton. *Molecular Biotechnology* <https://doi.org/10.1007/s12033-019-00192-4> IF: 2.6
18. Sarbesh Das D, Muhammad N, Mohammad H A, **Aneela Y**, Mehmet Emin C, Allah B. (2018) Genetic Engineering of *Solanum tuberosum* L. to Enhance Resistance Against Abiotic Stresses: A Review. JOJ scin. 2018; 1(5): 555571.
19. Ahmad, A.; Zia-Ur-Rehman, M.; Hameed, U.; Qayyum Rao, A.; Ahad, A.; **Yasmeen, A.**; Akram, F.; Bajwa, K.S.; Scheffler, J.; Nasir, I.A.; Shahid, A.A.; Iqbal, M.J.; Husnain, T.; Haider, M.S.; Brown, J.K. Engineered Disease Resistance in Cotton Using RNA-Interference to Knock down *Cotton leaf curl Kokhran virus*-Burewala and Cotton leaf curl Multan betasatellite Expression. *Viruses* 2017, 9, 257.doi:[10.3390/v9090257](https://doi.org/10.3390/v9090257) IF:4.7
20. **Yasmeen A.**, Kiani S., Butt A., Rao AQ., Akram F., Ahmad A., Nasir IA., Husnain T., Mansoor S., Amin I., Aftab S., ZibairM.mTahir MN., Akhtar S., Scheffler J., and Scheffler B. (2016) “Amplicon-Based RNA Interference Targeting V2 Gene of CottonLeaf Curl Kokhran Virus-Burewala Strain Can Provide Resistance in Transgenic Cotton Plants” Mol. Biotechnol DOI 10.1007/s12033-016-9980-8 IF: 2.6
21. Ahmad A., Ashraf S., Fatima A., Shah A., Saleem S., Sheharbano and **Yasmeen A.** (2016) “HIV awareness in Pakistan: A survey based study” Journal of Coastal Life Medicine; 4(6): 496-499 doi: 10.12980/jclm.4.2016J5-102
22. Farhat M, **Yasmeen A**, Ahmad A. 2014. An Overview of Hepatitis B and C in Pakistan. International Journal of Microbiology and Allied Sciences. 1(2):98-102

23. Khan M. A., **Yasmeen A.**, Jafri S. S., Ahmad A. (2013) “Promoting Scientific Research Culture in Youth through Empirical Inculcation”. *Future of Medical Education Journal*; 3:1; pp26-30

National;

1. Hira Ijaz, Maham Mureed, **Aneela Yasmeen**, Arooj Naseer, Abrar Hussain, Sana Jabeen (2023) Molecular phylogeny and morphological characterization of *Leucocoprinus birnbaumii* from Punjab, Pakistan *Advancements in life sciences* 10:2; pp 148-151.
2. Sana Shakoor, Tahir Rehman Samiullah, Naila Shahid, Abdul Qayyum Rao*, **Aneela Yasmeen**, Sana Tahir, Ayesha Latif, Saira Azam, Ahmad Ali Shahid and Tayyab Husnain (2021) In Silico Prediction and Evaluation of E. coli Expressed Recombinant HA Protein of Avian Influenza Virus Pakistan J. Zool., pp 1-8, 2021. DOI: <https://dx.doi.org/10.17582/journal.pjz/20190703110751> **IF: 0.6**
3. Zahida Qamar Z, Muhammad Tariq, Tahir Rehman, Muhammad Shahzad Iqbal, Muhammad Bilal Sarwar, Muhammad Nauman Sharif, Zohaib Hassan, Ayesha Ahmad, Aiman Zahra, Ayesha Latif, Bushra Rashid, Mohsin Abbas Zaidi, Bushra Tabassum, Sameera Hassan, Allah Baksh, Momina Javaid, Sania Akram, Saira Azam, Farah Naz, Shafique Ahmed, Kamran Shahzad Bajwa, Mudassar Fareed Awan, Naila Shahid, Arfan Ali, Saman Riaz, Bisma Bashir, Kanza Sadiq Qurat ul Ain Kokab, Iqra Yousaf, Abdul Munim Faroo¹, Muhammad Aslam Javed, Zia Ur Rahman, Muhammad Zafar Saleem, **Aneela Yasmeen** et al. (2019) Trackable CEMB-Klean Cotton Transgenic Technology: Affordable Climate Neutral Agri-biotech Industrialization for Developing Countries. *Advancements in life sciences* 6:3; pp 131-138
4. Ahmad A., Ahmad A., Raheem A. and **Yasmeen A.** (2015) “Knowledge, Attitude and Practice of Pesticide Handlers in Pakistan.” *Pak J Public Health* 5(2): 17-34
5. Ahmad A., Ashraf S., Raheem A. and **Yasmeen A.** 2014 “Science, Scientists and Economic growth” *Sci. tech. and Dev.* 33 (4):165-168
6. Azam S., Samiullah T. R., **Yasmeen A.** Salah ud Din, Iqbal, A., Rao A. Q., Nasir I A., Rashid B., Shahid A. A., Ahmad, M. and Husnain T. (2013) , Dissemination of Bt cotton in cotton growing belt of Pakistan. *Advancements in life sciences* 1:1; pp 18-26.

Articles in News Papers

1. **Yasmeen A.** Ilyas, M., (2011) “The dream comes true: An interview with Dr. Kamran Azeem, Technology Times, Thematic Edition, 14 August 2011, Page 06

Books / Book Chapters

1. Ayesha Latif, Ammara Ahad, Mukhtar Ahmad, Sidra Akhtar, **Aneela Yasmeen**, Ahmad Ali Shahid, Abdul Qayyum Rao, Idrees Ahmad Nasir and Tayyab Husnain (2021) GM technology and fiber traits **Cotton Precision Breeding Springer ISBN year 2021**
2. **Aneela Yasmeen**, Sarfraz Kiani, and Tayyab Husnain Title: Transformations of Cotton with siRNA-based construct targeting CLCuD Publisher: LAP Lambert Academic Publishing Co. ISBN: 978-3-659-69851-4 Year: 2015

Abstracts

1. **Aneela Yasmeen***, Abdul Qayyum Rao, Saira Azam, Ayesha Latif, Naila Shahid, Tahir Rehman Samiullah, Allah Bakhsh, Sana Shakoor, Sara Ajmal, Sahar Sadaqat, Ayesha Imran, Sania Naeem, Ujala Nasir, Muhammad Awais, Muhammad Saad Bhutta, Tayyab Husnain, Kausar Malik (2023) presented at Genome editing of potatoes via

CRISPR/Cas9 to improve crop attributes “BIOCON2023- National Conference on Recent Trends in Biosciences held at University of Swat, Swat, Pakistan on June 21-23, 2023

2. **Aneela Yasmeen***, Abdul Qayyum Rao, Saira Azam, Ayesha Latif, Naila Shahid, Tahir Rehman Samiullah, Allah Bakhsh, Sana Shakoor, Sara Ajmal, Sahar Sadaqat, Ayesha Imran, Sania Naeem, Ujala Nasir, Muhammad Awais, Muhammad Saad Bhutta, Tayyab Husnain, Kausar Malik (2023) Crispr /cas9 based genetically edited potatoes presented at International Conference of Life Sciences (ICLS) held at Gomal University, Dera Ismail Khan on May 29-30, 2023
3. **Aneela Yasmeen**, Abdul Qayyum Rao, Saira Azam, Ayesha Latif, Naila Shahid, Tahir Rehman Samiullah, Allah Bakhsh, Sana Shakoor, Sara Ajmal, Sahar Sadaqat, Ayesha Imran, Sania Naeem, Muhammad Awais, Muhammad Saad Bhutta, Tayyab Husnain, Kausar Malik (2023) CRISPR/cas9 based genetically edited potatoes with enhanced attributes presented at International conference on Recent Approaches in Plant Sciences (RAPS-2023) held at University of Education on May 4-5, 2023
4. **Aneela Yasmeen**, Sarbesh Das Dangol, Muhammad Naeem, Mohammad Hussein Azimi, Allah Bakhsh, Mehmet Emin Caliskan (2018) Genetic engineering endeavors in potato (*solanum tuberosum* l.) to enhance tolerance against abiotic and biotic stresses presented at International conference on Plant sciences held at GC University Lahore on December 5-8, 2018.
5. Amina Yaqoob, Ghazala Ali Khan, **Aneela Yasmeen**, (2018) “Outreach training programs are enhancing awareness about lab bio safe culture in Punjab” presented at International symposium on advances in Molecular biology of plants and health sciences, held at CEMB, Lahore on December 19-21, 2018.
6. **Tayyab Husnain**, Felix Wolter, **Aneela Yasmeen**, Sana Shakoor, Sahar Sadaqat, Mujahid Hussain, Maryam Maqsood, Maryam Abid, Momal Maqsood, Ujala Nasir, Sara Ajmal, Maria Khawer, Salah Ud-Din, Bilal Sarwar, Ambreen Gul, Mohsin Shad, Gulzaib Liaqat Ali, Muhammad Usmaan, Saira Azam, Ayesha Latif, Naila Shahid, Tahir Rehman Samiullah, Ahmad Ali Shahid, Idrees Ahmad Nasir, Holger Puchta and Abdul Qayyum Rao (2019) “CRISPR Engineering To Knockdown the Begomoviruses CLCuV and its Insect Vector *Bemisia Tabaci*” presented at Plant and Genome Conference (PAG) Asia 2019 held at Shenzhen China, June 6-8, 2019
7. **Aneela Yasmeen**, Amina Yaqoob, Samra Kousar, Saira Azam, Zunaira Sher, Ghazala Yasmeen “Outreach Training Programs Are Enhancing Awareness About Lab Bio Safe Culture In Pakistan” Global Young scientists Summit 2019 held at Nanyang Technology University, Singapore
8. Muhammad Usmaan, Sahar Sadaqat, Mohsin Shad, Ayesha Liaqat, Gulzaib, Mizna, Ayesha Malik, Maira Zahid, Saira Azam, **Aneela Yasmeen** , Abdul Qayyum Rao, Ahmadi Ali Shahid, Tayyab Husnain (2018) “Expression of foreign genes in microalgae” presented at International symposium on advances in Molecular biology of plants and health sciences, held at CEMB, Lahore on December 19-21, 2018.
9. Afshan Butt, Sarfraz Kiani, **Aneela Yasmeen** et al., (2015) Whitefly Resistance in Cotton (*Gossypium hirsutum*) through microRNA against Sxl, AChE and ORC genes presented at International Symposium on Advances in Molecular Biology of Plants and Health Sciences, held at CEMB, 29-31 December 2015

10. **Aneela Yasmeen**, Sarfraz Kiani, Afshan Butt et al (2015) Transformation of Amplicon based RNAi construct in cotton to target begomoviruses presented at International Symposium on Advances in Molecular Biology of Plants and Health Sciences, held at CEMB, 29-31 December 2015

Volunteer Work

- Founder, Gull's Association Pakistan
- Event Manager, Congress of Molecular Biology (Since May 2016 till date)
- Vice President, NAYS Pakistan (Since January 2016 till September 2016)
- Member, Journal Club CEMB (since January 2012 till date)
- Executive Committee Member, NAYS Pakistan (April 2014 till September 2016)
- Project Coordinator, S4Y NAYS (since April 2015 till September 2016)
- Founding Member Islamic Young Scientists Academy (IYSA)
- NAYS Events Coordinator (Since July 2011 till September 2016)
- Editor in Chief NAYS e-Newsletter (since October 2011 till April 2014)
- Advisory Board Member NAYS S4Y Project (Since July 2012 till September 2016)
- Project Coordinator, S4Y NAYS (since May 2011 till July 2012)
- Editor NAYS e-Magazine (Since October 2012 till September 2016)
- Chief Editor NAYS E-bulletin (since October 2010 till October 2011)
- Sub Editor NAYS Newsletter (since August 2010 till October 2011)

Skills

Scientific Skills:

- Plant Transformation
- DNA Extraction
- Gel Electrophoresis & Gel Documentation
- Polymerase Chain Reaction (PCR)
- Sangers' Sequencing

Computer Skills

- MS Office (Word, Power Point, Excel)
- Office automation (email and Internet Browsing and Surfing)
- Graphic designing (Coral Draw, Flash 5, Photoshop)

Memberships

- American Society for Microbiology (Membership Number: 200014477)
- Pakistan Biological Safety Association (Membership Number: 858)

Conferences/Seminar/Workshops Participated

Participation

Resource Person

1. Hands on Training Workshop on design CIRSPR/Cas constructs held at CEMB on December 07, 2022
2. One Day workshop on Developing Lab Biosafety Culture organized by Gull's Association

Pakistan in collaboration with Pakistan Scientific and Technological Information Centre (PASTIC), Peshawar at Islamia College University Peshawar November 19, 2018

Oral Presenter

1. BIOCON2023- National Conference on Recent Trends in Biosciences held at University of Swat, Swat, Pakistan on June 21-23, 2023
2. International Conference of Life Sciences (ICLS) held at Gomal University, Dera Ismail Khan on May 29-30, 2023
3. International conference on Recent Approaches in Plant Sciences (RAPS-2023) held at University of Education on May 4-5, 2023 presented my talk on CRISPR/cas9 based genetically edited potatoes with enhanced attributes.
4. 3rd international symposium on advances in Molecular Biology of Plants and Health Sciences held at CEMB on December 19-21, 2018. Presented my talk entitled Outreach training programs are significantly increasing the awareness among researchers and health professionals towards Lab Biosafety in Punjab, Pakistan
5. International conference on Plant sciences held at GC University Lahore on December 5-8, 2018. Presented my talk entitled Genetic engineering endeavors in potato (*Solanum tuberosum* L.) to enhance tolerance against abiotic and biotic stresses.

Participant

1. WEBINAR ON THE PATENT COOPERATION TREATY (PCT) AND YOUTH organized by the World Intellectual Property Organization (WIPO) in cooperation with the Intellectual Property Organization (IPO), Pakistan and the Department of Patents, Designs and Trademarks (DPTD), Bangladesh on September 4 and 5, 2023
2. International Conference on trends and challenges in Health Sciences (ICHS2023) held at CEMB on March 1-2, 2023
3. Virtual participation in International Seminar on “Herbal and Traditional Medicine: A Sustainable Alternate for the Greener Future” organized by COMSTECH November 28 2022
4. International Health Symposium held at CEMB on November 17, 2022
5. Virtual participation in "Endnote as a Referencing tool in Research Writings" webinar organized by World Forum for Young Scientists on November 6, 2022.
6. Virtual Participation in the seminar World Food Day 2022; Leave No one Behind Addressing Pakistan Food Security Challenge - Post Floods organized by COMSTECH 11th October 2022
7. International Congress of “VI. International Anatolian Agriculture, Food, Environment and Biology Congress” hosted by Kütahya Municipality under the leadership of Niğde Ömer Halisdemir University, Sivas Cumhuriyet University, Kütahya Dumlupınar University and The Turkish Journal of Agriculture - Food Science and Technology (TURJAF), organized by Turkish Science and Technology Publishing (TURSTEP) on 07-09 October 2022, Kütahya, Türkiye
8. "Enlightening Lecture" delivered by Mr. Orya Maqbool Jan, jointly organized by Creative Club-CAMB and Journal Club-CEMB, University of the Punjab, Lahore at Riazuddin Auditorium, CEMB on 7th October 2022.
9. Hands on training for “Growing edible gardens and entrepreneurship” held at Kinnaird

- College for Women, on October 04, 2022
10. "Seminar on Biosafety and Biosecurity" jointly organized by Centre for Applied Molecular Biology (CAMB) and Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore at Riazuddin Auditorium, CEMB on 3rd October 2022
 11. Kazakhstan-Pakistan-Turkiye Youth Forum on Biotechnology, Online, September 13-15, 2022
 12. SECDIV - NIPS Islamabad International Conference 2022 at NUST, September 05-06, 2022
 13. Virtual 1-Day Online Training Workshop on Snapgene® Molecular Biology Software organized by Department of Microbiology SBBWU Peshawar on August 31, 2022
 14. International Symposium on "Climate Smart Sustainable Rice-Wheat Production System Certificate of participation" Organized by UPSIGN, COMSTECH, SAWiE, SACAN, in collaboration with Department of Soil Science, FAS, University of the Punjab, Lahore on August 11, 2022
 15. Pakistan Chemical Expo organized by PCMA at EXPO centre, July 19-20, 2022
 16. Webinar on how to insert In-text citation and create Bibliography using Endnote, organized by ORIC, IOBM and PASTIC, April 27, 2022
 17. Webinar on Effective Presentation Skills of a researcher organized by PASTIC, April 20, 2022
 18. 1st International Conference on Recent Approaches In Plant Sciences (RAPS 2022) organized by Department of Botany, University of Education, Lahore on March 30-31, 2022
 19. COMSTECH, UNESCO and PAS Webinar on Open Science Organized by COMSTECH, UNESCO and PAS March 10th, 2022
 20. Training Seminar On "How to Improve/Implement Hec-Qaa Parameters" organized by QEC-Punjab University, March 03, 2022
 21. COMSTECH Webinar on "Epigenetics, The immortal kiss of our grandparents" delivered by Prof. Dr. Rana Dajani. Organized by COMSTECH. Jan 25th, 2022
 22. COMSTECH-ICCBS International Seminar on "Improving Stroke Care in Low and Middle Income Countries" Organized by COMSTECH January 24, 2022
 23. International Symposium on "Digital Technologies for the Future World" Organized by COMSTECH January 19-20, 2022
 24. Global Young Scientists Summit (GYSS), online, Jan 17-20, 2022
 25. Online certificate course "Micropropagation of quality banana plant for commercial purpose" organized by COMSTECH on November 25, 2021
 26. The 20th Shoukat Khanum Cancer Symposium, organized by Shoukat Khanum Memorial Cancer Hospital & Research Centre (SKMH) on November 4-7, 2021
 27. Plant Physiology Webinar: Highlighting Focus Issue "Sensors and Controllers: For and From Plants, American Society of Plant Microbiology, October 22, 2021
 28. Webinar on "Nano chemistry and evaluation of nanoparticles in the Human body by modern techniques" organized by World Forum for Young Scientists, September 08, 2021
 29. Webinar on "Harmonal Issues –causes cure with Naturopathy organized by Hop & Learn Educational Organization on September 04, 2021
 30. Webinar on Advances in Regenerative Medicine organized by World Forum for Young Scientists on August 22, 2021

31. Participated in independence day Quiz Competition organized by Virtual University, Pakistan on August 14, 2021
32. Webinar on Primer designing using bioinformatics tools organized by World Forum for Young Scientists on August 08, 2021
33. International Webinar on Agricultural Nanotechnology organized by Department of plant pathology faculty of Agriculture, University of the Punjab Lahore on July 29, 2021
34. Virtual Biological risk Management Conference Organized by Pakistan Biosafety Association and Forgarty International Center (FIC)-NIH, USA June 04-04, 2021
35. AASSA-PAS webinar series 2021 webinar II “Pandemics Preparedness, One health: Lessons Learnt organized by Pakistan Academy of Sciences May 04, 2021
36. AASSA-PAS webinar series 2021 webinar II “Pandemics Preparedness: Science and Counter Measures Webinar I: SDGs and Pandemics organized by Pakistan Academy of Sciences April 27, 2021
37. Online certificate course: Optimum use of analytical and preparative HPLCs organized by COMSTECH secretariat on March 11-12, 2021
38. Virtual live Keystone Symposia eSymposia meeting Precision Engineering of the Genome, Epigenome and Transcriptome | EK24 from March 8-10, 2021
39. Virtual live Keystone Symposia eSymposia meeting Plant Genome Engineering: From Lab to Field | EK25 from March 8-9, 2021.
40. 1st International Symposium on Current Trends and Future Perspectives in Botanical Research. November 06, 2020
41. Online workshop on “Make your research life easier with Mendely tool, November 06, 2020
42. 19th Shaukat Khanum Cancer Symposium , November 5 - 8, 2020
43. National Symposium on “National Symposium on CRISPR / Cas System held on Nov 03, 2020 at UVAS Patoki Campus
44. Workshop on Anxiety disorders in youth, online event, October 31, 2020
45. Intellectual property for scientists, Online certificate course, organized by COMSTEC , September 09, 2020
46. China-Pakistan Science workshop “ Use of new technology in Locust Control” August 20, 2020
47. Certificate of completion Let’s break the chain of COVID-19 infection March 23, 2020
48. DBS: How to Professionally address a hater in the workplace, online lecture by Sean Kuafman, February 26, 2020
49. National Dialogue on Ag-Biotech for food security & capacity Building of Bio-safety Regulators held at COMSTECH Islamabad on December 11-12, 2019
50. International Conference on Recent Innovations in Molecular Sciences held at University of the Punjab, Lahore on November 6-8, 2019
51. Participated in 8th invention to Innovation Summit, held at CEMB-University of the Punjab on April 02-03, 2019
52. Online lecture on “Intrinsic Safety: The difference between serving and policing” by Saun Kaufman on April 25,, 2019
53. Online lecture on “four phases of biological risk mitigation” by Saun Kaufman on February 01, 2019

54. Global Young Scientists Summit 2019 held in Nanyang Technology University, Singapore on January 20-25, 2019
55. A two-day workshop on Plant Biotechnology for Food Security, FC University, Lahore on November 27-28, 2018
56. Workshop on Scientific writing and Publishing at Department of Immunology, University of Health Sciences, Lahore on November 20, 2018
57. One Day Workshop on Protein Structure Analysis & Computer Aided Drug Designing” at Centre of Excellence in Molecular Biology, University of the Punjab, Lahore On September 28, 2018
58. Seminar on Risk assessment of GM crops organized by CEMB in collaboration with Gull’s Association Pakistan and American society of Plant Biologists (ASPB) at CEMB on July 20, 2018
59. Participated in 7th invention to Innovation Summit, held at UGB-University of the Punjab (March 07-08, 2018)
60. Participated in 6th invention to Innovation Summit, held at UGB-University of the Punjab (March 02-03, 2017)
61. Participated in 5th invention to Innovation Summit, held at UGB-University of the Punjab (March 02-03, 2016)
62. Participated in 5th International /10th Biennial conference of Plant phytopathological society held at Department of Mycology and Plant Pathology, University of the Punjab, Lahore, Pakistan. (November 23-25, 2015)
63. Participated in 3 days International Workshop on “Omics of Begomoviruses and its impact on National Economy” held at ASAB-NUST (March 25-27, 2015)
64. Participated in 3 days international conference on “Stress biology and Biotechnology: challenges and management” held at Institute of agricultural sciences, University of the Punjab, Lahore (May 21-23, 2014)
65. Participated in one day “Seminar on Science Communication and Challenge” held at COMSATS (April 08, 2014)
66. Participated in 4 days workshop on “Molecular Biosciences –Challenges and Opportunities” in SBS, University of the Punjab on (November 25-28, 2013)
67. Participated in 3 day workshop on “Applications of Modern Biotechnology in Muslim Countries– Specific Issues and Challenges” held at COMSTECH Islamabad (February 27-29, 2012)
68. Participated in one day workshop on “Fluorescent Microscopy: Introduction and Applications” held at Microbiology and Molecular Genetics department, University of The Punjab, Lahore on (September 24, 2011).
69. Participated in one-day open seminar on “Dengue Fever “held at Microbiology and Molecular Genetics department, University of The Punjab, Lahore (September 21, 2011)
70. Participated in workshop on “Ethical Issues related to work on Stem Cells” (2009)
71. Participated in International Symposium Future trends in Molecular Biological Research & It’s Applications in Agriculture and Health at CEMB University of Punjab Pakistan (March 2009).
72. Participated in A Symposium on Present status and Future trends in Molecular Biology Organized by the Center of Excellence in Molecular Biology and Centre for Applied

Molecular Biology, University of the Punjab, Lahore, Pakistan (March, 25-28, 2009)

73. Participated in 3rd International conference on Plant Pathology and 7th Biennial meeting of phyto pathological society held at Department of Mycology and Plant Pathology, University of the Punjab, Lahore, Pakistan. (November 19-21, 2007)
74. Participated A workshop on Biochemical and Fermenter Applications held at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore, Pakistan (August 19, 2006)

Conferences/Seminar/Workshops Organized

1. Workshop on Reimagining New Agriculture Economy from Engineered Yeast held at CEMB on March 03, 2023
2. International Conference on Trends and Challenges in Health Sciences held at CEMB on December March 01-02, 2023
3. Awareness Seminar on GM Soybean and potential of Soybean cultivation in Pakistan held at CEMB on January 23, 2023
4. International Conference on Plants Molecular Biology held at CEMB on December 14-15, 2022
5. International Pak Health Expo- CEMB Conference held at Expo Centre on December 09,2022
6. Hands on Training Workshop on design CIRSPR/Cas constructs held at CEMB on December 07, 2022
7. CEMB COTTON SEMINAR held at CEMB on March 22, 2022
8. Hands-on Training Workshop on Structural Bioinformatics Tools held at CEMB on February 23-25, 2022
9. 4th international symposium on advances in Molecular Biology of Plants and Health Sciences held at CEMB on December 24-25, 2021
10. International conference on Recent Innovations in Molecular Sciences (ICPU) 2019 held at University of the Punjab, Lahore on Nov 07-09, 2019
11. Two-day Handson Training Workshop on CRISPR/Cas Genome editing Technology organized by CEMB at CEMB on April 29-30 21-22, 2019
12. Training on Incineration and other waste treatment methods organized by Gull's Association Pakistan in collaboration with Health Security Partners and CEMB at CEMB on February 21-22, 2019
13. Training on Biological Waste Management for Housekeeping Staff organized by Gull's Association Pakistan in collaboration with Health Security Partners and CEMB at CEMB on February 20, 2019
14. 3rd international symposium on advances in Molecular Biology of Plants and Health Sciences organized by Centre of Excellence in Molecular Biology (CEMB) held at CEMB on December 19-21, 2018.
15. Training on Biological Waste Management and Emergency Response Procedures organized by Gull's Association Pakistan in collaboration with Health Security Partners and CEMB at CEMB on October 11-12, 2018

16. An Awareness cum Workshop on Biological Waste Management organized by Gull's Association Pakistan in collaboration with Health Security Partners and CEMB held at CEMB on October 9-10, 2018
17. 3 days workshop on "Dual Use of Research Concerns (DURC)" organized by CEMB in collaboration with Health security partners and Gull's Association Pakistan held at CEMB on July 16-18, 2018.
18. One day Workshop on Behavior management strategies held at University of Gujrat, May 11, 2018
19. 2nd International Symposium on Advances in Molecular Biology of Plants and Health Sciences, held at CEMB, 20-23, November 2017
20. One Day training workshop on Behavioral biosafety training workshop organized by CEMB in collaboration of Congress of molecular Biology and Gulls Association Pakistan held at CEMB on August 23, 2017
21. One Day Seminar on "Communication & Negotiation Interlock" organized by CEMB in collaboration of Congress of molecular Biology and Gulls Association Pakistan held at CEMB on April 25, 2017
22. Workshop on "Pak-China Young Scientists Exchange Programme" held at CEMB on April 21, 2017
23. International Training Workshop On Microarray for Gene Expression held at CEMB on February 14, 2017
24. Five days Training course to equip brother Islamic countries with advance technology entitled "Planning of cotton production, land preparation, weed control, pest and disease control and harvesting held at CEMB, December 12-16, 2016
25. Awareness Seminar on Awareness Seminar Lungs and Bronchial Diseases held at CEMB Nov 17, 2016
26. One Day workshop entitled "A Day with Biosafety" held at CEMB, October 20, 2016
27. Breast Cancer Awareness Seminar held at CEMB, October 03, 2016
28. An Awareness Seminar on Congo Virus held at CEMB, September 05, 2016
29. National Workshop on CRISPR /Cas9 Genome Editing Technology held at CEMB, June 02, 2016
30. Hands on Training Workshop on Advanced Presentations Skills held at Institute of Agricultural Sciences, University of the Punjab, Lahore. May 19, 2016
31. "Biosafety Training Workshop for Young Scientists" arranged at AMK Campus Mardan, KP-Agriculture University, Peshawar on May 11, 2016
32. "Biosafety Training Workshop for Young Scientists" arranged at IBGE, KP-Agriculture University, Peshawar on May 10, 2016
33. PSF Workshop on Establishing and Leading Research Lab held at COMSATS Institute of Information Technology, Lahore on May 02-03, 2016
34. National Workshop on Career Development held at Institute of Agricultural Sciences, University of the Punjab, Lahore. April 21, 2016
35. ICGEB Course on "Basic Biotechnology Techniques" held at Dow University of Medical and Health Sciences (DUHS), Karachi on March 28-30, 2016 Pakistan
36. ICGEB Course on "Basic Biotechnology Techniques" held at National Institute of Biotechnology and Genetic Engineering (NIBE), Faisalabad, March 15-17, 2016

37. ICGEB Course on “Basic Biotechnology Techniques” held at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore on march 07-09, 2016
38. ICGEB Course on “Basic Biotechnology Techniques” held at Atta-Ur-Rehman School of Biological Sciences, National University of Science and Technology (NUST), Islamabad on February 23-25, 2016
39. Cancer Awareness Seminar held at CEMB, February 26, 2016
40. International Symposium on Advances in Molecular Biology of Plants and Health Sciences, held at CEMB, 29-31 December 2015
41. Hands on Training Workshop on Publishing Research in High Impact Factor Journals, held at Department of Geology, University of the Punjab on 28 November 2015
42. NAYS Photo Contest 2013 on Scientists Day November 16-18, 2015.
43. Hands on training workshop on “Next generation sequencing data analysis”, held at CEMB, October 14-16, 2015
44. Workshop on “Biosafety Training for Young Scientists” arranged at KP-Agriculture University, Peshawar on 2nd September 2015
45. Workshop on “Biosafety Training for Young Scientists” arranged at KP-Agriculture University, Peshawar on 1st September 2015
46. Workshop on “Biosafety Training for Young Scientists” arranged at IBB- University of the Punjab, Lahore on 6th June 2015
47. Science For Youth Week held across Pakistan from 01-07 May 2015
48. National Science Communication Challenge 2014 held at CEMB, 05-09-2014
49. NAYS Appreciation Awards 2014 at Punjab University, Lahore on 22nd February 2014
50. Workshop on “Biosafety Training for Young Scientists” arranged at KP-Agriculture University, Peshawar on 29th January 2014
51. Workshop on “Biosafety Training for Young Scientists” arranged at FCU Lahore on 18th January 2014
52. Seminar on “Entrepreneurship in Pakistan” held at CEMB on 29th November 2013.
53. Knowledge Transfer Workshop on “Chronic Pain Management” held at University of Health Sciences Lahore on 28th September 2013
54. NAYS Essay Competition on “Science and Society”
55. Two days’ Workshop on “2nd Youth Innovation Workshop” held at University of the Punjab, Lahore on 29-20 August 2013
56. DNA Day Seminar held at Centre of Excellence in Molecular Biology (CEMB), on 25th April 2013
57. NAYS Emerging Ideas Conference 2012 held at Centre of Excellence in Molecular Biology (CEMB), on 25th April 2013
58. NAYS Science Forum 2013 held at University of Peshawar on 9th April 2013
59. Seminar on Understanding Cancer held at Shifa College of Medicine Rawalpindi on 25th March 2013.
60. NAYS Photo Contest 2013 on Scientists Day 10th March 2013.
61. Gifts Distribution among Cancer Patients held at Children Hospital Lahore on 5th February 2013
62. Short Seminar on “Cancer Awareness and Scientists Day Celebrations” held at University of Veterinary Sciences Lahore on 4th March 2013

63. Mini Workshop on Young Researchers' Skill Development held at Lahore College for Women University, Lahore on 28th February 2013
64. A Health Awareness Seminar on "Cancer Risk Factors and Treatments" held at University of Peshawar on 4th February 2013.
65. Health Awareness Seminar on World Cancer Day held at University of Karachi on 2nd February 2013
66. 5th One Day Workshop on Young Researchers' Skills Development held at Agriculture University Faisalabad on 15th December 2012
67. Short seminar on "Importance of Patents in Commercialization of Inventions" held at CEMB, University of the Punjab, Lahore on 19th October 2012
68. 3 days workshop on "Primer to Recombinant DNA Technology" held at University of Lahore on 14-16 September 2012
69. 2 days Workshop on "First Innovative Workshop" held at University of the Punjab, Lahore on 12-13 August 2012
70. 4th One Day Workshop on Young Researchers' Skill Development held at University of Karachi, Karachi on 23rd June 2012
71. One day workshop on Basic Bio informatics Skills held at GCUF, Faisalabad on 11th April 2012.
72. 3rd One Day Workshop on Young Researchers' Skill Development held at KP Agriculture University, Peshawar, KPK on 10th March 2012.
73. Emerging Ideas Conference held at University of the Punjab, Lahore on 7th January 2012.
74. 2nd One Day Workshop on Young Researchers' Skill Development held at University of the Punjab, Lahore on 7th January 2012.
75. Endnote Training Workshop held at University of Health Sciences on 24th December 2011.
76. One day workshop on Young Researchers' Skill Development held in National University of Sciences and Technology on 26th November 2011.
77. "2nd Biosafety Training for Young Scientists" organized by NAYS as organizer Held at Shifa College of Medicine, Islamabad on July 28, 2011
78. A workshop on Biosafety Training for Young Scientists organized by NAYS. Held at CRIMM University of Lahore on July 09, 2011

References

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