

Aneela Yasmeen PhD

Assistant Professor (BPS-18)

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Personal Statement

I am a biochemist and agriculture molecular biologist currently serving as an Assistant Professor at the Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore. Since joining CEMB in 2008, I have developed over 18 years of research experience in biochemistry, molecular biology, plant biotechnology, and genetic engineering, with professional experience in Immunology, HBV/HCV Diagnostics, Medical Genetics, and Plant Biotechnology laboratories.

My research focuses on the genetic improvement of crops through genome editing and genetic engineering, with particular emphasis on potatoes and cotton. In potato, my research encompasses CRISPR/Cas-mediated improvement of disease resistance, biofortification, nutritional quality, post-harvest shelf life, and processing-related traits. I am also involved in developing climate-resilient cotton with enhanced resistance to diseases, insect pests, drought, and heat. My research additionally encompasses lentils, alfalfa, Brassica, and sugarbeet. I have served as Principal Investigator, Co-Principal Investigator, or Scientist on multiple nationally and internationally funded research projects supported by the Higher Education Commission of Pakistan, Islamic Development Bank, Pakistan Science Foundation, Punjab University, and international partners.

My academic and research training includes an M.Phil. and Ph.D. from CEMB, University of the Punjab, with my doctoral research focused on CRISPR/Cas9-mediated knockdown of the Vacuolar Invertase (VInv) gene in potato to reduce cold-induced sweetening during storage. This work contributed to the development of genome-editing research in plants at CEMB and resulted in a national patent for targeted CRISPR/Cas9 editing of the *VInv* gene. I also received the Mevlana Exchange Scholarship and conducted research at Niğde Ömer Halisdemir University, Türkiye.

Alongside research and teaching, I have extensive experience in student supervision, scientific training, academic administration, and institutional service. I currently serve as Events Coordinator at CEMB and Chairperson of the CEMB Journal Club and contribute to various institutional committees. I have supervised and co-supervised M.Phil. and Ph.D. researchers working in genome editing, crop improvement, biofortification, disease resistance, and nutritional enhancement.

I am strongly committed to science outreach, capacity building, and youth engagement. I am the Founder of Gull's Association-Pakistan and have held leadership and coordination positions in the National Academy of Young Scientists (NAYS) and the Congress of Molecular Biology. I have organized more than 90 scientific events, including conferences, seminars, workshops, and training programmes, and have represented Pakistan at international scientific platforms, including the Global Young Scientists Summit (GYSS) 2019 in Singapore.

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)

Administrative Responsibilities

- **Chairperson CEMB Journal Club Committee** (Since October 2023 till date)
- **Member CEMB Guest House Committee** (April 2024 till date)
- **Member Guest House Verification Committee** (November 2025 till Date)
- **Events Coordinator CEMB** (Since March 2024 till date)

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)
- **Member QEC CEMB,** University of the Punjab, Lahore since 2019 to June 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)

External Examiner

- **External examiner** for viva voice exams 2017 at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore
- **External examiner** for viva voice exams 2024 at Department of Botany, Division of Science and Technology, University of Education, Lahore

Reviewer

- Journal of Plant Sciences
- Journal of Potato Research
- Nordic Journal of Botany
- NUST Journal of Emerging Sciences
- Pleiades online Journals
- Scientific Reports
- Turkish Journal of Botany

International Research Work Experience

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

Grants

Research Grants	Title	Role	Funding Agency	Duration	Amount (PKR Million)
Ongoing					
1.	Molecular Screening of Genome edited potato plants with enhanced nutritional Value	PI	Punjab University	2024-2025	0.3 million
2.	Internal Genetic Switching for TPS12-Mediated Cotton Resistance Against Sucking Insects	Co-PI	NRPU-HEC	2025-2027	10.023 million
3.	Development of <i>Verticillium Wilt</i> and Abiotic stress resistant cotton A collaborative project with Azerbaijan	Scientist	Islamic Development Bank (IDB).	2025-2028	USD: 130000 36.394 million PKR
4.	Progression of CEMB-CRISPR/Cas9 based GE-Potatoes with enhanced shelf life into a viable commercial product	PI	TDF-HEC	2025-2027	9.42 million
5.	Genetic Engineering of potatoes to enhance nutritional value	PI	Punjab University	2024-2025	0.2 million
6.	CRISPR / cas 9 mediated knock out of <i>LOV1</i> and <i>AOS2</i> genes to impart biotic stress resistance in potato (<i>Solanum tuberosum</i>)	Co-PI	CPEC-HEC	2024-2026	12.963 million
7.	Optimization of protocol for transformation of Sugarbeet along with	Co-PI	Plant Breeding Institute Germany	2024-2025	0.6 million

	Adaptability and Technology Testing Trials for Climate Resilient of Brassica napus L				
8.	Development of Climate Resilient cotton resistant to drought and heat through editing of negative regulators by using Cpf1 multiplex system.	CO-PI Scientist	NSLP funded by PSF	2023-2026	6.00 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
2.	Development of climate smart cotton by editing Arginase (<i>GhArg</i>) genes using genome editing (CRISPR/Cas) tools.	Co-PI/ Scientist	(LCF HEC)	2022-2024	Rs. Million 21.50 CEMB PART Rs. Million 3.8

Patents

- National Patent: 144591 entitled CRISPR/Cas9 construct and method for targeted editing of the Vacuolar Invertase gene in potato to reduce cold-induced sweetening; assignees are Abdul Qayyum Rao, Aneela Yasmeen, Tayyab Husnain, Ahmad Ali Shahid

Supervision

Sr. No	Role	Student name	Students Institute	Title of thesis	Program	Session
Ongoing						
1.	Supervisor	Pashma Nawaz	CEMB, University of the Punjab. Lahore	CRISPR/Cas9-Driven Modification of Potato Dry Matter Biomass and Starch for Improved Processing and Nutritional Properties	PhD	2024-29
2.	Supervisor	Samran Sardar	CEMB, University of the Punjab. Lahore	CRISPR/Cas9-Mediated Editing of Stress-Responsive Regulatory Gene to Reduce Boll Shedding in Cotton	PhD	2024-29
2.	Supervisor	Jaweria Naz	CEMB, University		M. Phil	2025-27

			of the Punjab. Lahore			
Completed						
1.	Supervisor	Samar Sharif	CEMB, University of the Punjab. Lahore	Multiplex CRISPR/Cas9- Mediated Genome Editing of Potato against Fungal and Bacterial Pathogens	M. Phil	2024-26
2.	Supervisor II	Muhammad Shahzaib Razi	CEMB, University of the Punjab. Lahore	Toxicological and Nutritional Risk Assessment of Genome- Edited Potatoes in Mice	M. Phil	2024-26
3.	Co- Supervisor	Beenish	Department of Botany, University of Education, Lahore	Molecular Phylogeny and Morphological Characterization of Basidiomycetous Macrofungi from Changa Manga Forest, Kasur District, Punjab, Pakistan	M. Phil	2024-26
4.	Supervisor	Manahil Azhar	CEMB, University of the Punjab. Lahore	CRISPR/Cas9-based biofortification of potato to enhance vitamin D content through targeted knockout of the sterol delta-7-reductase gene	M. Phil	2023-25
5.	Supervisor- II	Sana Fatima	CEMB, University of the Punjab. Lahore	CRISPR/Cas9 Multiplex Based downregulation of Arginase gene (GhArg) in <i>Gossypium hirsutum</i>	M. Phil	2023-25
6.	Co- Supervisor	Muhammad Naveed	Department of Botany, University of Education, Lahore	nrDNA-ITS based identification of Basidiomycetes Macrofungi from Hot desert climate Regions of Southern Punjab, Pakistan	M. Phil	2023-25
7.	Supervisor- II	Muhamad Nadeem Sajjad	CEMB, University of the Punjab. Lahore	CRISPR/Cas9 mediated knockout of CYP94A2 and NAC103 genes in <i>Solanum tuberosum</i> (Potato) to induce common scab resistance	M. Phil	2022-24
8.	Supervisor- II	Pashma Nawaz	CEMB, University of the Punjab. Lahore	CRISPR/CAS9 mediated knockout of DMR6 & ERF3 genes in <i>Solanum tuberosum</i> to induce resistance against <i>Phytophthora infestans</i>	M. Phil	2022-24
9.	Co- Supervisor	Wasiqa	Department of Botany, University of Education, Lahore	nrDNA-ITS based phylogeny and Morpho- anatomical characterization of some macrofungi of Mianwali district Punjab, Pakistan	M. Phil	2022-24

10	Supervisor II	Saad Tahir	CEMB, University of the Punjab, Lahore	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
11	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
12	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
13	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
14	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
15	Co-Supervisor	Samia 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

Honors / Awards / Scholarships

- **Best Oral Presenter Award** for presenting work at 3rd International Conference on Recent Approaches in Plant Sciences (RAPS-2025) held at University of Education on November 12-13, 2025
- **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 2nd International Conference on Recent Approaches in Plant Sciences (RAPS-2023) held at University of Education on May 4-5, 2023
- **Professional Certification in Bio risk Management** from International Federation of Biosafety Associations (IFBA) since October 29, 2022
- **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)
- **Certificate of Appreciation** for organizing Punjab University Hostel events 2017-18 presented on May 11, 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
- **Winner Cricket (girls)**, CEMB Annual Sport Week, 2016
- **Letter of Appreciation** by Muhammad Nawaz Sharif University of Agriculture, Multan for organizing Biosafety training workshop for young scientists at university (2015)
- **Winner Cricket (girls)**, CEMB Annual Sport Week, 2015
- **Certificate of Recognition** for outstanding contribution as Sub Edition and Editor in Chief e-Bulletin NAYS (Feb 2014)
- **Certificate of Recognition** for outstanding contributions as Chief Editor and Sub Editor NAYS e newsletter (Feb 2014)
- **First Position in** Coral Draw and Graphic designing Course (2014)
- **2nd Position (Table Tennis)** CEMB Annual Sports Week 2013
- **Winner (Cricket)** CEMB Annual Sports Week 2013
- **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)

Certifications

- **Professional Certification in Bio risk Management** from International Federation of Biosafety Associations (IFBA) since October 29, 2022

Trainings/Courses

- Biosafety: Train the Trainer Workshop (ToT) workshop held at Islamabad (25-29 March 2018)
- COMSTECH-FCC-ECOSF International Workshop on Genomics and Genome Editing held at FCU (May 24-27, 2016)
- Short course on Coral Draw and Graphic designing securing A+ grade held at Institute of Geology, University of the Punjab, Lahore (May 12-July 03, 2014).
- Training on Spoken English organized by English Message Service, Lahore on February 17, 2013
- Training on Leica Microsystems on cytovision system for FISH and Karyotyping by Medilaser (December 26-30, 2011)
- Short Course on Communication Skills Development from the Institute of Chemical Engineering and Technology, University of the Punjab (July 18-August 27, 2011)

Teaching

PhD

1. CEMB 711: High throughput Techniques for Gene Expression
2. CEMB 708: Plant Production & Protection

MPhil

1. CEMB 501: Molecular Biology
2. CEMB 512: Review Article/ Research Proposal/Assignments

Accessions Submitted

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Publications (IF:75; Citations 357; h-index 11)

Articles

Submitted

1. Sara Ajmal, **Aneela Yasmeen***, Sana Shakoor, Ayesha Latif, Saira Azam, Muhammad Awais, Sahar Sadaqat, Narmeen Tariq Zaman, Tahir Rehman Samiullah, Naila Shahid, Abdul Qayyum Rao* (2026) Cpf1 mediated multiplexed based editing of CLCuV leads to reduced virus titer and symptomless cotton plants. Submitted in Planta
2. Ayesha Imran; Saira Azam*; Ayesha Latif; Naila Shahid; **Aneela Yasmeen**; Tahir Rehman Sammiullah; Sania Naeem; Muhammad Ali Baig; Abdul Qayyum Rao; Ahmad Ali Shahid (2026) Engineering Cotton with ASAL and MYB Genes Confers Dual Benefits of Pest Resistance and Fiber Improvement"
3. "Immunogenic Evaluation of an E. coli-expressed Multi-Epitope Vaccine for Foot-and-Mouth Disease
4. Tahir Rehman Samiullah; Farheen Anjum; Muhammad Saad Bhutta; Saira Azam; Ayesha Latif; **Aneela Yasmeen**; Esha Asghar; Bushra B. Patoli; Abdul Qayyum Rao Engineering Maize to Express Hemagglutinin (HA) protein for the Development of Plant-Based Vaccine against Avian Influenza Virus (AIV)
5. Naila Shahid; Sidra Qayyum; Muhammad Awais; Muhammad Saad Bhutta; Abdul Rafay; Ayesha Latif; Saira Azam; **Aneela Yasmeen**; Abdul Qayyum Rao; Moazur Rahman Rational Design of a Novel Bivalent Multi-Epitope Peptide Vaccine Conferring Dual Protection against Newcastle Disease and Infectious Bursal Disease"
6. Muhammad Awais; Sahar Sadaqat; Noreen Iftikhar, Muhammad Arslan; Ehsan Fatemi; **Aneela Yasmeen**; Naila Shahid; Zhi wang, Prof. Abdul Qayyum Rao*, Beyond off-target editing: the emerging landscape of Cas9 cytotoxicity and immunogenicity across the biological systems,
7. Sania Naeem; Saira Azam; Nadeem Ahmad; Ahmad Ali Shahid; Ayesha Latif; Naila Shahid; **Aneela Yasmeen**; Muhammad Awais; Sahar Sadaqat; Muhammad Saad Bhutta; Abdul Qayyum Rao* Development of Transgenic Aloe vera for the Molecular Farming of Human Serum Albumin
8. Agaricus sect. Minores from Pakistan with description of A. iqbalii sp. nov.

International

1. Saira Azam; Aftab Ahmad; Ayesha Latif; Naila Shahid; **Aneela Yasmeen**; Ayesha Imran; Ruhangiz Mammadova; Muhammad Awais; Samina Hassan; Ahmad Ali Shahid; Tayyab Husnain; Abdul Qayyum Rao (2026) De novo design of modular insecticidal scaffold enhances cotton resistance to pink bollworm and whitefly Journal of Cotton Research **IF 3.6** DOI : 10.1186/s42397-026-00283-z Article ID : 42397_2026_283_ArticleManuscript ID : COTN-D-25-00202R3
2. Ujala Nasir, **Aneela Yasmeen***, Ayesha Latif, Allah Bakhsh, Nadeem Ahmad, Naila Shahid, Saira Azam, Muhammad Awais, Abdul Qayyum Rao*and Ahmad Ali Shahid (2026) Multiplexed CRISPR/Cas9 mediated knockdown of BCH gene in potato enhances beta-carotene to combat Vitamin A Deficiency submitted in Plant Science **IF4.6** <https://doi.org/10.1016/j.plantsci.2026.113370>
3. Memoona Azeem, Mehboobullah Khan, Muhammad Bilal Sharif, Aleena Shahid, Aamna Ishaq, Arooj Naseer, **Aneela Yasmeen** & Sana Jabeen* (2026). Systematics and distribution of three species in Agaricus sect. Minores from Pakistan with description of a new species and nomenclatural resolution of an illegitimate name. Sydowia **IF 1.2** DOI 10.12905/0380.sydowia79-2027-0147
4. Sahar Sadaqat. Muhammad Awais. Muhammad Saad bin Tahir. Ramsha Ajmal, AneelaYasmeen,

- Saira Azam, Naila Shahid, Ayesha Latif*, Allah Bakhsh, Ruhangiz Mammadova Abdul Qayyum Rao* (2026) Uncovering the Central Role of GhSPL13 in Vegetative Growth, Root Architecture, and 2 Stress Responses in Cotton. Plant Science Article Number 113291 IF4.6
5. Iftikhar, N., Bhutta, M. S., Zaman, N. T., Khalid, A., Latif, A., Azam, S., Shahid, N., Yasmeen A & Rao, A. Q. (2025). Submergence stress in plants: molecular mechanisms, physiological changes, and adaptive responses. *Physiology and Molecular Biology of Plants*, 1-14. IF 3.6
 6. Hafiz Muhammad Zeeshan, Ayesha Imran, Saira Azam, Ayesha Latif, Naila Shahid, **Aneela Yasmeen**, Abdul Munim Farooq, Sania Naeem, Tahir Rehman Samiullah, Abdul Qayyum Rao and Ahmad Ali Shahid (2025) Impact of ViP3Aa 86 expressing transgenic maize on the health of Wistar rats: a toxicological study. *Toxicology Research*, 2025, 14, tfaf138. **IF 2.9** <https://doi.org/10.1093/toxres/tfaf138>
 7. Bhutta, Muhammad Saad; Shahid, Naila; Ajmal, Sara; Shakoor, Sana; Khursheed, Zainab; Salis, Ibrahim B; Ahmad, Sheraz; Azam, Saira; **Yasmeen, Aneela**; Latif, Ayesha; Rao, Abdul Qayyum (2024) Investigation of the toxicity and safety concerns of transgenic maize seeds expressing immunogenic F and HN protein genes against Newcastle disease virus. *Toxicology Research*, Volume 13, Issue 5, October 2024, tfae143, **IF 2.9** <https://doi.org/10.1093/toxres/tfae143>
 8. Wasiqa Arshad, Hira Ijaz, Mehboobullah Khan, **Aneela Yasmeen**, Chang-Lin Zhao, Aneeqa Ghafoor, Eisha Komal, Abdul Rahman Niazi, Sana Jabeen (2024) *Volvariella griseoalba* (Agaricales, Volvariellaceae), a new species from Punjab, Pakistan: A new species in *Volvariella* (Agaricales, Volvariellaceae)” *Phytotaxa* 661(1):031-046 **IF. 1.2**
 9. Sana Jabeen, Arooj Naseer, Hira Ijaz, Tuba, **Aneela Yasmeen**, Abdul Rehman Niazi, Chang-Lin Zhao (2024) “*Leucoagaricus rosuliformis* sp. nov. (Agaricales, Basidiomycota) from Changa Manga Forest, Punjab, Pakistan” *Phytotaxa* 652 (4): 273-283 **IF. 1.2**
 10. Awais M; Rao AQ, Sadaqat S, Yaqoob A, Bhutta MS, Shakoor S, **Yasmeen A**, Ajmal S, Hamed G, Khan KA, Bakhsh A. (2024). The Regulatory Landscape of Genetically Engineered (GE) Crops in Pakistan” *Food and Energy Security*. 2024;13:e494. **IF. 4.5**
 11. 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*; Volume 35, pages 2907–2918 <https://doi.org/10.1007/s10811-023-03100-1> **IF. 3.6**
 12. 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. 4.4 Q1 W category**
 13. 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: 3.3 Q2**
 14. **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: 2.3 Q2 W**
 15. 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:4.9 Q1 W**
 16. **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>, **W category IF. 4.4 Q1**
 17. 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 3.2 Q3 Y**

18. Sadaqat S, Usmaan M, Mizna, Shakoor S, Hameed R, Ajmal S, Yaqoob A, Muhammad M, Babar M, Ishaq A, Irfan M, Ain NU, Awais M, Bhutta MS, Raouf A, Imtiaz M, Shahid N, Latif A, Yasmeen A, Azam S, Samiullah TR, Rao AQ and Shahid AA, 2022. Transformation and expression of gene in microalgae: From tools to applications. *Agrobiological Records*, 7: 29-39.
19. Shad M, **Yasmeen A**, Azam S, Bakhsh A, Latif A, Shahid N, Salah Ud Din, Sadaqat S, Rao AQ, Shahid AA. (2022) Enhancing the resilience of transgenic cotton for insect resistance. *Mol Biol Rep.* 49(6):5315-5323 doi: 10.1007/s11033-021-06972-z. Epub ahead of print. PMID: 34839448 **IF 3.2 Q3 W**
20. 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 0**
21. 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 0.7 Q4 W**
22. Naila Shahid, Tahir Rehman Samiullah, Sana Shakoor, Ayesha Latif, 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: 3.1 Q1 W**
23. Ambreen Gul , Ghulam Hussain, Adnan Iqbal, Abdul Qayyum Rao, Salah ud Din, Aneela Yasmeen, Naila Shahid, Ammara Ahad, Ayesha Latif, 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: 4.9 Q1 W**
24. A. Bakhsh, 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:0.6 Q4 W**
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32. Khan M. A., **Yasmeen A.**, Jafri S. S., Ahmad A. (2013) "Promoting Scientific Research Culture in Youth through Empirical Incultation". *Future of Medical Education Journal*; 3:1; pp26-30

National;

1. Hira Ijaz, Maham Mureed, **Aneela Yasmeen**, Amir Ali, Abrar Hussain & Sana Jabeen (2024) Morphological and nrDNA-ITS Sequences-Based Identification and Ecological Distribution of *Volvoxpluteus earlei* in Pakistan. *J. Plantarum.*, 6(1): 28-38
2. 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. **IF: 0**
3. 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**
4. 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 Farooq¹, 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 **IF: 0**
5. 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
6. Ahmad A., Ashraf S., Raheem A. and **Yasmeen A.** 2014 "Science, Scientists and Economic growth" *Sci. tech. and Dev.* 33 (4):165-168
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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. Naeem, S. Hameed, R., Sadaqat S., Shahid N., Latif A., **Yasmeen A.**, Azam S., Rao A.Q. (2024). Microalgae as a Bioreactor for Molecular Farming for the Production of Oral Edible Vaccines Against Infectious Diseases of Humans and Animals. In: Kole, C., Chaurasia, A., Hefferon, K.L., Panigrahi, J. (eds) *Applications of Plant Molecular Farming. Concepts and Strategies in Plant Sciences*. Springer, Singapore. https://doi.org/10.1007/978-981-97-0176-6_23
2. 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.* https://link.springer.com/chapter/10.1007/978-3-030-64504-5_12
3. **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:

- Genome Editing
- 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

Trainer/ Resource Person

1. CRISPR/Cas Systems in Genome Editing: A Hands-on Training Workshop organized by and held at by CEMB on June 17-19, 2025
2. Hands on Training Workshop on design CIRSPR/Cas constructs held at CEMB on December 07, 2022

3. 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. Recent Advances in plant biotechnology for sustainable development of climate change held at Government College University Faisalabad on May 13-14, 2026. Title of talk: Application of CRISPR/Cas9 Genome Editing for Developing Nutrient-Enriched and Disease-Resistant Potato Varieties
2. International conference on Recent Approaches in Plant Sciences (RAPS-2025) held at University of Education on November 12-13, 2025 presented talk on CRISPR-Cas9–Mediated Genome Editing of Potato for Trait Improvement, Biofortification, and Disease Resistance
3. 1st International Seminar on Advances in Biotechnology held at University of Central Punjab, Lahore on Nov 5, 2025 presented talk on Genome editing for sustainable agriculture
4. International Symposium on Role of Biotechnology in Agricultural Practices as guest speaker, held at University of Education Lahore on October 02, 2025
5. BIOCON2023- National Conference on Recent Trends in Biosciences held at University of Swat, Swat, Pakistan on June 21-23, 2023 presented talk on Genome editing of potatoes via CRISPR/Cas9 to improve crop attributes
6. International Conference of Life Sciences (ICLS) held at Gomal University, Dera Ismail Khan on May 29-30, 2023 presented talk on Crispr cas9 based genetically edited potatoes
7. 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.
8. 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
9. 2nd International conference on Plant sciences held at GC University Lahore on December 5-7, 2018. Presented my talk entitled Genetic engineering endeavors in potato (*Solanum tuberosum* l.) to enhance tolerance against abiotic and biotic stresses.

Participant

1. Hands on Training Workshop on Sanger Sequencing held at PCSIR LLC on June 11, 2026
2. D-8 Hands-on Training Workshop on Next-Generation Sequencing (NGS) held at Centre of Advanced Studies in Agriculture and Food Security, University of Agriculture Faisalabad on June 08-12, 2026
3. Recent Advances in plant biotechnology for sustainable development of climate change held at Government College University Faisalabad on May 13-14, 2026.
4. International conference on Recent Approaches in Plant Sciences (RAPS-2025) held at University of Education on November 12-13, 2025 presented talk on CRISPR-Cas9–Mediated Genome Editing of Potato for Trait Improvement, Biofortification, and Disease Resistance
5. 1st International Seminar on Advances in Biotechnology held at University of Central Punjab, Lahore on Nov 5, 2025 presented talk on Genome editing for sustainable agriculture
6. International Symposium on Role of Biotechnology in Agricultural Practices as guest speaker, held at University of Education Lahore on October 02, 2025
7. Punjab Innovation and Technology PINTECH Expo2025 organized by Punjab Higher Education Commission held at Expo Centre Lahore on April 21, 2025
8. Hands on training on Patent Claims and drafting Organized by ORIC-PU, held at Institute of Chemical engineering and Technology, University of the Punjab, Lahore on December 18, 2024

9. Showcasing of CEMB research at event in HEC "UK higher Education Delegation Visit to Pakistan, Exploring Opportunities for sustainable partnerships between Pakistan and UK universities" April 22-23, 2024, HEC, Islamabad
10. Showcasing of CEMB research at event in Ministry of Federal Education on International Day of Education, January 24, 2024, MOE, Islamabad
11. Seminar organized by ORIC-PU on Machine learning fundamentals and its applications in agriculture held on October 18, 2023
12. Cyber Biosecurity training for life science researchers, healthcare and IT professionals organized by the Institute of Microbiology, Government College University, Faisalabad (GCUF) in Collaboration with Health Security Partners (HSP), USA. held at Institute of Microbiology (IOM), University of Veterinary and Animal Sciences (UVAS), on 25-26 October 2023
13. 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
14. International Conference on Food and applied sciences (ICFAS-2023) Dir-Kumrat held at Shaheed Benazir Bhutto University, Sheringal on August 03-05, 2023
15. BIOCON2023- National Conference on Recent Trends in Biosciences held at University of Swat, Swat, Pakistan on June 21-23, 2023
16. International Conference of Life Sciences (ICLS) held at Gomal University, Dera Ismail Khan on May 29-30, 2023
17. 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.
18. International Conference on trends and challenges in Health Sciences (ICHS2023) held at CEMB on March 1-2, 2023
19. Virtual participation in International Seminar on “Herbal and Traditional Medicine: A Sustainable Alternate for the Greener Future” organized by COMSTECH November 28 2022
20. International Health Symposium held at CEMB on November 17, 2022
21. Virtual participation in "Endnote as a Referencing tool in Research Writings" webinar organized by World Forum for Young Scientists on November 6, 2022.
22. 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
23. 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
24. "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.
25. Hands on training for “Growing siyb gardens and entrepreneurship” held at Kinnaird College for Women, on October 04, 2022
26. "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
27. Kazakhstan-Pakistan-Turkiye Youth Forum on Biotechnology, Online, September 13-15, 2022
28. SECDIV - NIPS Islamabad International Conference 2022 at NUST, September 05-06, 2022
29. Virtual 1-Day Online Training Workshop on Snapgene® Molecular Biology Software organized

- by Department of Microbiology SBBWU Peshawar on August 31, 2022
30. 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
 31. Pakistan Chemical Expo organized by Pakistan Chemical Manufacturers Association (PCMA) at EXPO Centre Lahore, July 19-20, 2022
 32. Webinar on how to insert In-text citation and create Bibliography using Endnote, organized by ORIC, IOBM and PASTIC, April 27, 2022
 33. Webinar on Effective Presentation Skills of a researcher organized by PASTIC, April 20, 2022
 34. 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
 35. COMSTECH, UNESCO and PAS Webinar on Open Science Organized by COMSTECH, UNESCO and PAS March 10th, 2022
 36. Training Seminar On “How to Improve/Implement Hec-Qaa Parameters” organized by QEC-Punjab University, March 03, 2022
 37. COMSTECH Webinar on “Epigenetics, The immortal kiss of our grandparents” delivered by Prof. Dr. Rana Dajani. Organized by COMSTECH. Jan 25th, 2022
 38. COMSTECH-ICCBS International Seminar on “Improving Stroke Care in Low and Middle Income Countries” Organized by COMSTECH January 24, 2022
 39. International Symposium on “Digital Technologies for the Future World” Organized by COMSTECH January 19-20, 2022
 40. Global Young Scientists Summit (GYSS), online, Jan 17-20, 2022
 41. Online certificate course “Micropropagation of quality banana plant for commercial purpose” organized by COMSTECH on November 25, 2021
 42. The 20th Shoukat Khanum Cancer Symposium, organized by Shoukat Khanum Memorial Cancer Hospital & Research Centre (SKMH) on November 4-7, 2021
 43. Plant Physiology Webinar: Highlighting Focus Issue “Sensors and Controllers: For and From Plants, American Society of Plant Microbiology, October 22, 2021
 44. 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
 45. Webinar on “Harmonal Issues –causes cure with Naturopathy organized by Hop & Learn Educational Organization on September 04, 2021
 46. Webinar on Advances in Regenerative Medicine organized by World Forum for Young Scientists on August 22, 2021
 47. Participated in independence day Quiz Competition organized by Virtual University, Pakistan on August 14, 2021
 48. Webinar on Primer designing using bioinformatics tools organized by World Forum for Young Scientists on August 08, 2021
 49. International Webinar on Agricultural Nanotechnology organized by Department of plant pathology faculty of Agriculture, University of the Punjab Lahore on July 29, 2021
 50. Virtual Biological risk Management Conference Organized by Pakistan Biosafety Association and Forgarty International Center (FIC)-NIH, USA June 04-05, 2021
 51. AASSA-PAS webinar series 2021 webinar II “Pandemics Preparedness, One health: Lessons Learnt organized by Pakistan Academy of Sciences May 04, 2021
 52. 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
 53. Online certificate course: Optimum use of analytical and preparative HPLCs organized by

COMSTECH secretariat on March 11-12, 2021

54. Virtual live Keystone Symposia eSymposia meeting Precision Engineering of the Genome, Epigenome and Transcriptome | EK24 from March 8-10, 2021
55. Virtual live Keystone Symposia eSymposia meeting Plant Genome Engineering: From Lab to Field | EK25 from March 8-9, 2021.
56. 1st International Symposium on Current Trends and Future Perspectives in Botanical Research. November 06, 2020
57. 19th Shaukat Khanum Cancer Symposium , November 5 - 8, 2020
58. National Symposium on “National Symposium on CRISPR / Cas System held on Nov 03, 2020 at UVAS Patoki Campus
59. Workshop on Anxiety disorders in youth, online event, October 31, 2020
60. Intellectual property for scientists, Online certificate course, organized by COMSTEC , September 09, 2020
61. China-Pakistan Science workshop “ Use of new technology in Locust Control” August 20, 2020
62. Online training on “Make you research life easier better with MENDELEY tool” organised by PASTIC on September 06, 2020
63. Completion certificate on Let’s break the chain of COVID-19 infection March 23, 2020
64. DBS: How to Professionally address a hater in the workplace, online lecture by Sean Kuafman, February 26, 2020
65. National Dialogue on Ag-Biotech for food security & capacity Building of Bio-safety Regulators held at COMSTECH Islamabad on December 11-12, 2019
66. International Conference on Recent Innovations in Molecular Sciences held at University of the Punjab, Lahore on November 6-8, 2019
67. Participated in 8th invention to Innovation Summit, held at CEMB-University of the Punjab on April 02-03, 2019
68. Online lecture on “Intrinsic Safety: The difference between serving and policing” by Saun Kaufman on April 25,, 2019
69. Online lecture on “four phases of biological risk mitigation” by Saun Kaufman on February 01, 2019
70. Global Young Scientists Summit 2019 held in Nanyang Technology University, Singapore on January 20-25, 2019
71. A two-day workshop on Plant Biotechnology for Food Security, FC University, Lahore on November 27-28,2018
72. Workshop on Scientific writing and Publishing at Department of Immunology, University of Health Sciences, Lahore on November 20, 2018
73. 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
74. -Seminar on Risk assessment of Genetically Modified (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
75. Participated in the seminar of Digital PCR QX200 (BIORAD) System “Advances in PCR Technology” Power to detect single copy without standard curves, held at CAMB on April 05, 2017
76. Participated in 7th invention to Innovation Summit, held at UGB-University of the Punjab (March 07-08, 2018)
77. Participated in 4th Conference on Computational Biology and Genomics held at Hazara University, Mansehra on September 27-29, 2017
78. Participated in 6th invention to Innovation Summit, held at UGB-University of the Punjab (March 08-09, 2017)

79. Participated in COMSTECH-FCC-ECOSF International Workshop Genomic and Genome Editing held at FCCU on May 24-27, 2016
80. Participated in PSF Workshop on “Fund Winning Opportunities held at the occasion of 5th invention to Innovation Summit, held at UGB-University of the Punjab (March 02-03, 2016)
81. Participated in 5th invention to Innovation Summit, held at UGB-University of the Punjab (March 02-03, 2016)
82. 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)
83. Participated in 3 days International Workshop on “Omics of Begomoviruses and its impact on National Economy” held at ASAB-NUST (March 25-27, 2015)
84. Participated in 3rd Invention to Innovation Summit, held at University of the Punjab (March 19-20, 2014)
85. 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)
86. Participated in one day “Seminar on Science Communication and Journalism” held at COMSATS (April 08, 2014)
87. Participated in 4 days workshop on “Molecular Biosciences –Challenges and Opportunities” in SBS, University of the Punjab on (November 25-28, 2013)
88. Participated in Invention to Innovation Summit, held at University of the Punjab (April 09-10, 2013)
89. Participated in one day workshop on “Minds to Market 2012” held at COMSATS Institute of Information Technology, Abbottabad on December 01, 2012
90. 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)
91. 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).
92. Participated in one-day open seminar on “Dengue Fever “held at Microbiology and Molecular Genetics department, University of The Punjab, Lahore (September 21, 2011)
93. Participated in workshop on “Ethical Issues related to work on Stem Cells” (2009)
94. 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).
95. 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)
96. 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)
97. Participated in a workshop on Biochemical Engineering and Fermenter Applications held at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore, Pakistan (August 19, 2006)

Conferences/Seminar/Workshops Organized

1. International Cotton Conference to commemorate World Cotton Day organized by and held at by CEMB on October 07-08, 2025
2. Workshop on Exploring the potential of Transgenic Algae in Green Biotechnology organized by and held at by CEMB on September 16, 2025

3. CRISPR/Cas Systems in Genome Editing: A Hands-on Training Workshop organized by and held at by CEMB on June 17-19, 2025
4. Forensic DNA Data analysis with GeneMapper ID software Organized by CEMB on December 05, 2024
5. Hands on training workshop on Mammalian Cell culture techniques organised by CEMB in collaboration on Sep 11-12, 2024
6. One-Day Workshop on Computational Tools for Molecular Docking & Molecular Dynamics Simulation in Drug Discovery organised by CEMB in collaboration with GCUF on May 15, 2024
7. Hands-on training workshop on Real Time PCR organised by CEMB on April 24-25, 2024
8. International Conference on Current Trends, Prospects, and Opportunities in Vaccine Research held at CEMB on February 28-29, 2024
9. DNA sequencing: A hands-on Training workshop held at CEMB on January 29-February 02, 2024
10. Seminar on Strengthening FARM productivity Field to Fabric held at CEMB on November 23, 2023
11. Workshop on Reimagining New Agriculture Economy from Engineered Yeast held at CEMB on March 03, 2023
12. International Conference on Trends and Challenges in Health Sciences held at CEMB on December March 01-02, 2023
13. Awareness Seminar on GM Soybean and potential of Soybean cultivation in Pakistan held at CEMB on January 23, 2023
14. International Conference on Plants Molecular Biology (ICPMB) held at CEMB on December 14-15, 2022
15. International Pak Health Expo- CEMB Conference held at Expo Centre on December 09, 2022
16. Hands on Training Workshop on design CIRSPR/Cas constructs held at CEMB on December 07, 2022
17. CEMB COTTON SEMINAR held at CEMB on March 22, 2022
18. Hands-on Training Workshop on Structural Bioinformatics Tools held at CEMB on February 23-25, 2022
19. 4th international symposium on advances in Molecular Biology of Plants and Health Sciences held at CEMB on December 24-25, 2021
20. One Day International Symposium on Development of CKC Technology held at CEMB on December 15, 2020
21. International conference on Recent Innovations in Molecular Sciences (ICPU) 2019 held at University of the Punjab, Lahore on Nov 07-09, 2019
22. Two-day Handson Training Workshop on CRISPR/Cas Genome editing Technology organized by CEMB at CEMB on April 29-30, 2019
23. Web of Science Conference on International Scholarly Publishing from Pakistan Framer work for Fast-Paced Progress held at CEMB on March 11, 2019
24. 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
25. 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
26. 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.
27. 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
28. 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
 29. 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.
 30. One day Workshop on Behavior management strategies held at University of Gujrat, May 11, 2018
 31. 2nd International Symposium on advance in Molecular Biology of Plants and Health Sciences, held at CEMB, 20-23, November 2017
 32. One Day training workshop on Behavioral based biosafety culture organized by CEMB in collaboration of Congress of molecular Biology and Gulls Association Pakistan held at CEMB on August 23, 2017
 33. 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
 34. Workshop on "Pak-China Young Scientists Exchange Programme" held at CEMB on April 21, 2017
 35. CEMB Sports (Luddo) held at CEMB on March 20-24, 2017
 36. International Training Workshop On Microarray for Gene Expression held at CEMB on February 14, 2017
 37. 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
 38. Awareness Seminar on Awareness Seminar Lungs and Bronchial Diseases held at CAMB Nov 17, 2016
 39. One Day workshop entitled "A Day with Biosafety" held at CEMB, October 20, 2016
 40. Breast Cancer Awareness Seminar held at CEMB, October 03, 2016
 41. An Awareness Seminar on Congo Virus held at CEMB, September 05, 2016
 42. National Workshop on CRISPR /Cas9 Genome Editing Technology held at CEMB, June 02, 2016
 43. Hands on Training Workshop on Advanced Presentations Skills held at Institute of Agricultural Sciences, University of the Punjab, Lahore. May 19, 2016
 44. "Biosafety Training Workshop for Young Scientists" arranged at AMK Campus Mardan, KP-Agriculture University, Peshawar on May 11, 2016
 45. "Biosafety Training Workshop for Young Scientists" arranged at IBGE, KP-Agriculture University, Peshawar on May 10, 2016
 46. PSF Workshop on Establishing and Leading Research Lab held at COMSATS Institute of Information Technology, Lahore on May 02-03, 2016
 47. National Workshop on Career Development held at Institute of Agricultural Sciences, University of the Punjab, Lahore. April 21, 2016
 48. ICGEB Course on "Basic Biotechnology Techniques" held at Dow University of Medical and Health Sciences (DUHS), Karachi on March 28-30, 2016 Pakistan
 49. ICGEB Course on "Basic Biotechnology Techniques" held at National Institute of Biotechnology and Genetic Engineering (NIBE), Faisalabad, March 15-17, 2016
 50. 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

51. 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
52. Cancer Awareness Seminar held at CEMB, February 26, 2016
53. International Symposium on Advances in Molecular Biology of Plants and Health Sciences, held at CEMB, 29-31 December 2015
54. 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
55. NAYS Photo Contest 2013 on Scientists Day November 16-18, 2015.
56. Hands on training workshop on “Next generation sequencing data analysis”, held at CEMB, October 14-16, 2015
57. Workshop on “Biosafety Training for Young Scientists” arranged at KP-Agriculture University, Peshawar on 2nd September 2015
58. Workshop on “Biosafety Training for Young Scientists” arranged at KP-Agriculture University, Peshawar on 1st September 2015
59. Workshop on “Biosafety Training for Young Scientists” arranged at IBB- University of the Punjab, Lahore on 6th June 2015
60. Biosafety Training Workshop for Young Scientists held at Muhammad Nawaz Sharif University of Agriculture (MNSUA), Multan on May 14, 2014
61. Science For Youth Week held across Pakistan from 01-07 May 2015
62. National Science Communication Challenge 2014 held at CEMB, 05-09-2014
63. NAYS Appreciation Awards 2014 at Punjab University, Lahore on 22nd February 2014
64. 3rd “Biosafety Training Workshop for Young Scientists” arranged at KP-University of Agriculture, Peshawar on 28th January 2014
65. Workshop on “Biosafety Training for Young Scientists” arranged at FCU Lahore on 18th January 2014
66. Seminar on “Entrepreneurship in Pakistan” held at CEMB on 29th November 2013.
67. Knowledge Transfer Workshop on “Chronic Pain Management” held at University of Health Sciences Lahore on 28th September 2013
68. NAYS Essay Competition 2013 entitled “Science and Society”
69. Two days’ Workshop on “2nd Youth Innovative Workshop” held at Institute of Chemical Engineering and Technology, University of the Punjab, Lahore on 29-20 August 2013
70. DNA Day Seminar held at Centre of Excellence in Molecular Biology (CEMB), on 25th April 2013
71. NAYS Emerging Ideas Conference 2012 held at Centre of Excellence in Molecular Biology (CEMB), on 25th April 2013
72. NAYS Science Forum 2013 held at University of Peshawar on 9th April 2013
73. Seminar on Understanding Cancer held at Shifa College of Medicine Rawalpindi on 25th March 2013.
74. NAYS Photo Contest 2013 on Scientists Day 10th March 2013.
75. CEMB-Complex Sports Gala-2013 held at CEMB on March 04-08, 2013
76. Gifts Distribution among Cancer Patients held at Children Hospital Lahore on 5th February 2013
77. Short Seminar on “Cancer Awareness and Scientists Day Celebrations” held at University of Veterinary Sciences Lahore on 4th March 2013
78. Workshop on Young Researchers’ Skills Development held at Lahore College for Women University, Lahore on 28th February 2013
79. A Health Awareness Seminar on “Cancer Risk Factors and Treatments” held at University of Peshawar on 4th February 2013.
80. Health Awareness Seminar on World Cancer Day held at University of Karachi on 2nd February 2013

81. 5th One Day Workshop on Young Researchers' Skills Development held at Agriculture University Faisalabad on 15th December 2012
82. Essay Competition entitled "Science for Peace" organized by NAYS and Technology Times held on November 10, 2012
83. Short seminar on "Importance of Patents in Commercialization of Inventions" held at CEMB, University of the Punjab, Lahore on 19th October 2012
84. 3 days workshop on "Primer to Recombinant DNA Technology" held at University of Lahore on 14-16 September 2012
85. Two day Workshop entitled "1st Youth Innovative Workshop" held at University of the Punjab, Lahore on August 11-12. 2012
86. 4th One Day Workshop on Young Researchers' Skill Development held at University of Karachi, Karachi on 23rd June 2012
87. One day workshop on Basic Bio informatics Skills held at GCUF, Faisalabad on 11th April 2012.
88. 3rd One Day Workshop on Young Researchers' Skill Development held at KP Agriculture University, Peshawar, KPK on 10th March 2012.
89. Emerging Ideas Conference held at University of the Punjab, Lahore on 7th January 2012.
90. 2nd One Day Workshop on Young Researchers' Skill Development and NAYS Emerging Ideas Conference held at University of the Punjab, Lahore on 7th January 2012.
91. Endnote Training Workshop held at University of Health Sciences on 24th December 2011.
92. One day workshop on Young Researchers' Skill Development held in National University of Sciences and Technology on 26th November 2011.
93. "2nd Biosafety Training for Young Scientists" organized by NAYS as organizer Held at Shifa College of Medicine, Islamabad on July 28, 2011
94. 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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