

## Rabia Amir

Associate Professor

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## About

Dr. Rabia Amir is working as Associate Professor in the Atta-Ur-Rahman School of Applied Biosciences. Dr. Rabia Amir has a PhD in Plant Cell And Molecular Biology. Dr. Rabia Amir has published 75 research articles & conference papers having a citation count of 668, carried out 3 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Plant Cell And Molecular Biology</b> University of Edinburgh , United Kingdom	2010 - 2014
<b>MS in Plant Breeding And Genetics</b> Arid Agriculture University , Pakistan	2006 - 2008
<b>B.Sc (Hon) in Plant Breeding And Genetics</b> Arid Agriculture University , Pakistan	2002 - 2006

## Experience

<b>Associate Professor</b> Atta-Ur-Rahman School of Applied Biosciences	2021- Present
<b>Assistant Professor</b> Atta-Ur-Rahman School of Applied Biosciences	2018 - 2021
<b>Assistant Professor</b> Atta-Ur-Rahman School of Applied Biosciences	2015 - 2018
<b>Assistant Professor</b> Atta-Ur-Rahman School of Applied Biosciences	2015 - 2015
<b>Assistant Professor</b> Atta-Ur-Rahman School of Applied Biosciences	2014 - 2015

## Awards

<b>HEC overseas scholarship</b> HEC Overseas scholarship awarded for PhD degree (University of Edinburgh, UK)	2009
<b>Silver medal</b> Awarded Silver medal in Master of science (honours) Agriculture.	2009
<b>Gold Medal</b> Awarded gold medal for highest CGPA in Bachelor of science (honours) Agriculture.	2007
<b>Gold Medal</b> Awarded gold medal for highest percentage in year 2006 in entire university.	2007

Research Projects

National Projects

Elucidating the effects of organic amendment and nitrogen sources on flavonoids and nitrogen fixation in <i>Arachis hypogaea</i> . Funding Agency: HEC Amount: PKR 11,260,000.00 Status: Approved_inprocess	2022
Unraveling the effect of physiological factors in transcription of genes involved in flavonoid biosynthetic pathway in <i>Arachis Hypogaea</i> Funding Agency: Higher Education Comission (HEC), Pakistan Amount: PKR 445,000.00 Status: Completed	2016
Expression analysis of potential flavonoid biosynthetic pathway genes in cultivated peanut ( <i>Arachis hypogaea</i> ) Funding Agency: Higher Education Comission (HEC), Pakistan Amount: PKR 526,000.00 Status: Completed	2015

International Projects

Research Articles

Genome-wide association of root growth angle, seminal root numbers, and leaf area in the synthetic hexaploid wheat diversity panel <i>Maria Khalid Zoya Khalid Zubair Khalid Lee Hickey Awais Rasheed Alvina Gul Rabia Amir</i> <i>Plant Gene</i> , Volume:43, Article Number 100507 Impact Factor: 2.200   Quartile: 2 DOI: <a href="https://doi.org/10.1016/j.plgene.2025.100507">https://doi.org/10.1016/j.plgene.2025.100507</a>	2025
Arabidopsis Antiporter Genes as Targets of NO Signalling: Phylogenetic, Structural, and Expression Analysis <i>Rabia Amir Zuhra Qayyum Sajeel Hussain Byung Wook Yun Adil Hussain Bong-Gyu Mun</i> <i>International Journal of Molecular Sciences</i> , Volume 26(15), Article Number 7195 Impact Factor: 4.900   Quartile: 1 DOI: <a href="https://doi.org/10.3390/ijms26157195">https://doi.org/10.3390/ijms26157195</a>	2025
Photo-Induced Synthesis of Silver Nanoparticles Using <i>Bacillus safensis</i> as Elicitors for Enhanced Growth of Fenugreek in Hydroponic <i>Linta Jadoon Alvina Gul Hunaiza Fatima Rabia Amir Faiza Munir MUASTAFEEZ MUJTABA BABAR</i> <i>Applied Biochemistry and Biotechnology</i> , Pages:21 Impact Factor: N/A   Quartile: 2 DOI: <a href="https://doi.org/10.1007/s12010-025-05313-1">https://doi.org/10.1007/s12010-025-05313-1</a>	2025
Evaluation of Wheat Landrace Germplasm for Agronomic Disease Susceptibility and Quality Traits Using Kompetitive Allele-Specific PCR (KASP) Markers <i>Sumaira Salahudin Loddhi Alvina Gul Peter John Rabia Amir Faiza Munir Muhammad Jamil Hadi Alipour Bengu Turkiyalamaz Unal Munir Ozturk</i> <i>Anadolu Journal of Agricultural Sciences</i> , Volume 40, No. 2, Pages 221-238 Impact Factor: N/A DOI: <a href="https://doi.org/10.7161/omuanajas.1561421">https://doi.org/10.7161/omuanajas.1561421</a>	2025
Fulvic acid-releasing chitosan nanoparticles promote the growth and salt stress tolerance of soybean plants <i>Tiba Nazar Ibrahim Al-Azawi Murtaza Khan Mwondha Faluku Alexander Brown Da-Sol Lee Ashim Kumar Das Rabia Amir Liny Lay Bong-Gyu Mun Yoohna Kim Adil Hussian Byung-Wook Yun Vu Ngoc Huy Nusrat Jahan Methela</i> <i>Physiologia Plantarum</i> , Volume 177, Issue 3, Article Number e70254 Impact Factor: 5.400   Quartile: 1 DOI: <a href="https://doi.org/10.1111/ppl.70254">https://doi.org/10.1111/ppl.70254</a>	2025
In silico identification and functional annotation of universal stress protein (USP) gene family in <i>Chenopodium quinoa</i> <i>Hajira Imran Alvina Gul Rehan Zafar Paracha Rabia Amir Faiza Munir Muhammad Faraz Bhatti</i> <i>Scientific Reports</i> , Volume 15, Article Number 18264	2025

<p><b>Impact Factor:</b> 3.800   <b>Quartile:</b> 1</p> <p><b>DOI:</b> <a href="https://doi.org/10.1038/s41598-025-03264-5">https://doi.org/10.1038/s41598-025-03264-5</a></p>	
<p><b>An A-6 subgroup member of DREB gene family positively regulates cold stress tolerance by modulating an antioxidant defense system in transgenic potato</b></p> <p><i>Saba Azeem Faiza Munir Alvina Gul Rabia Amir</i></p> <p><i>Scientific Reports</i> , Volume 15, Article Number: 15421</p> <p><b>Impact Factor:</b> 3.800   <b>Quartile:</b> 1   <b>Citations:</b> 1</p> <p><b>DOI:</b> 10.1038/s41598-025-98886-0</p>	2025
<p><b>Molecular modelling and gene expression analysis to probe the GT-γ trihelix transcription factors in Solanum tuberosum under drought stress</b></p> <p><i>Tayyaba Bint Tariq Faiza Munir ISHRAT JABEEN Alvina Gul Rabia Amir</i></p> <p><i>Scientific Reports</i> , Volume 15, Article Number: 12471</p> <p><b>Impact Factor:</b> 3.800   <b>Quartile:</b> 1</p> <p><b>DOI:</b> <a href="https://doi.org/10.1038/s41598-025-96485-7">https://doi.org/10.1038/s41598-025-96485-7</a></p>	2025
<p><b>Overexpression of StDREB30 Gene Enhances Salt Stress Tolerance in Transgenic Potato</b></p> <p><i>Qurat-ul-ain Ali Faiza Munir Muhammad Faraz Bhatti Rabia Amir Alvina Gul</i></p> <p><i>Potato Research</i> , Pages 1-23</p> <p><b>Impact Factor:</b> 2.300   <b>Quartile:</b> 1</p> <p><b>DOI:</b> <a href="https://doi.org/10.1007/s11540-024-09811-3">https://doi.org/10.1007/s11540-024-09811-3</a></p>	2024
<p><b>Biochar and PGPR: A Winning Combination for Peanut Growth and Nodulation under Dry Spell</b></p> <p><i>Tashfeen Alam Fatima Bibi Hunaiza Fatima Faiza munir Alvina Gul Ghulam Haider Muhammad Jahanzaib Rabia Amir</i></p> <p><i>Journal of Soil Science and Plant Nutrition</i> , Pages: 16</p> <p><b>Impact Factor:</b> 3.4   <b>Quartile:</b> 1   <b>Citations:</b> 2</p> <p><b>DOI:</b> <a href="https://doi.org/10.1007/s42729-024-02067-3">https://doi.org/10.1007/s42729-024-02067-3</a></p>	2024
<p><b>Cloning and overexpression of the DREB30 gene enhances drought and osmotic stress tolerance in transgenic potato</b></p> <p><i>Qurat Ul Ain Ali Faiza Munir Muhammad Tahir Rabia Amir Alvina Gul</i></p> <p><i>Journal of Plant Interactions</i> , Volume 19, No. 1, Article Number 2364656</p> <p><b>Impact Factor:</b> 2.600   <b>Quartile:</b> 2   <b>Citations:</b> 4</p> <p><b>DOI:</b> 10.1080/17429145.2024.2364656</p>	2024
<p><b>Alkaloid rich hydroponic chili for AgNPs synthesis against multidrug resistant Staphylococcus aureus infected burn wounds</b></p> <p><i>Hunaiza Fatima Alvina Gul Linta Jadoon Syed Damin Abbas Hamdani Tausif Ahmed Rajput Rabia Amir Faiza Munir Mustafeez Mujtaba Babar</i></p> <p><i>Process Biochemistry</i> , Volume: 141, Pages 170-178</p> <p><b>Impact Factor:</b> 4.4   <b>Quartile:</b> 2   <b>Citations:</b> 1</p> <p><b>DOI:</b> 10.1016/j.procbio.2024.03.014</p>	2024
<p><b>Genome-wide analysis of heavy metal ATPases (HMAs) in Poaceae species and their potential role against copper stress in Triticum aestivum</b></p> <p><i>Tuba Sharf Batool Alvina Gul Rehan Zafar Paracha Mahnoor Ilyas Kathryn De Abreu Faiza Munir Rabia Amir Lorraine E. Williams Roohi Aslam</i></p> <p><i>Scientific Reports</i> , Volume 13, Article Number 7551</p> <p><b>Impact Factor:</b> 4.996   <b>Quartile:</b> 2   <b>Citations:</b> 11</p> <p><b>DOI:</b> <a href="https://doi.org/10.1038/s41598-023-32023-7">https://doi.org/10.1038/s41598-023-32023-7</a></p>	2023
<p><b>An integrated remediation approach using combinations of biochar, Rhizobium leguminosarum, and Vigna radiata for immobilizing and dissipating cadmium contaminants from the soil–mustard plant system</b></p> <p><i>Qurat-ul-Ain Hira Midhat Mehboob Rimsha Azhar Faiza Munir Alvina Gul Asim Hayat Tariq Shah Rabia Amir</i></p> <p><i>Frontiers in Plant Science</i> , Volume 14, Article Number 1139136</p> <p><b>Impact Factor:</b> 6.627   <b>Quartile:</b> 1   <b>Citations:</b> 2</p> <p><b>DOI:</b> 10.3389/fpls.2023.1139136</p>	2023
<p><b>Anti-MRSA potential of biogenic silver nanoparticles synthesized from hydroponically grown Foeniculum vulgare</b></p> <p><i>Hunaiza Fatima Syed Damin Abbas Hamdani Madiha Ahmed Tausif Ahmed Rajput Alvina Gul Rabia Amir Faiza Munir Sohaib Zafar Malik Mustafeez Mujtaba Babar</i></p> <p><i>Phytomedicine Plus</i> , Volume 3, Issue 1, Article Number 100415</p> <p><b>Impact Factor:</b> N/A   <b>Citations:</b> 15</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/j.phyplu.2023.100415">https://doi.org/10.1016/j.phyplu.2023.100415</a></p>	2023

<b>Genome-wide identification, comprehensive characterization of transcription factors, cis-regulatory elements, protein homology, and protein interaction network of DREB gene family in <i>Solanum lycopersicum</i></b> <i>Hajra Maqsood Faiza Munir Rabia Amir Alvina Gul</i> <i>Frontiers in Plant Science</i> , Volume 13, Article Number 1031679 <b>Impact Factor:</b> 6.627   <b>Quartile:</b> 1   <b>Citations:</b> 26 <b>DOI:</b> <a href="https://doi.org/10.3389/fpls.2022.1031679">https://doi.org/10.3389/fpls.2022.1031679</a>	2022
<b>Genome wide identification and characterization of nodulation related genes in <i>Arachis hypogaea</i></b> <i>Kiran Khurshid Anum Akram Ahmad Ali Faiza Munir Alvina Gul Ghulam Haider Zuhra Qayyum Rabia Amir</i> <i>PLOS ONE</i> , Volume 17, Issue 9, Article Number e0273768 <b>Impact Factor:</b> 3.752   <b>Quartile:</b> 2   <b>Citations:</b> 2 <b>DOI:</b> <a href="https://doi.org/10.1371/journal.pone.0273768">https://doi.org/10.1371/journal.pone.0273768</a>	2022
<b>Identification and Expression Analysis of Stilbene Synthase Genes in <i>Arachis hypogaea</i> in Response to Methyl Jasmonate and Salicylic Acid Induction</b> <i>Zuhra Qayyum Fatima Noureen Maryam Khan Marrium Khan Ghulam Haider Faiza Munir Alvina Gul Rabia Amir</i> <i>Plants</i> , Volume 11, Issue 13, Article Number 1776 <b>Impact Factor:</b> 4.658   <b>Quartile:</b> 1   <b>Citations:</b> 10 <b>DOI:</b> <a href="https://doi.org/10.3390/plants11131776">https://doi.org/10.3390/plants11131776</a>	2022
<b>Photoperiod and water-deficient conditions differentially regulate structural flavonoid biosynthetic genes in peanuts</b> <i>Maryam Khan Saman Taufiq Irum Nauman Norina Noor Tooba Iqbal Hina Ali Rehan Zafar Paracha Faiza Munir Alvina Gul Rabia Amir</i> <i>Journal of Plant Interactions</i> , Volume 17(1), Pages 620-631 <b>Impact Factor:</b> 4.208   <b>Quartile:</b> 1   <b>Citations:</b> 1 <b>DOI:</b> <a href="https://doi.org/10.1080/17429145.2022.2076940">https://doi.org/10.1080/17429145.2022.2076940</a>	2022
<b>Genome-wide promoter analysis, homology modeling and protein interaction network of Dehydration Responsive Element Binding (DREB) gene family in <i>Solanum tuberosum</i></b> <i>Qurat-ul-ain Ali Nida Mushtaq Rabia Amir Alvina Gul Muhammad Tahir Faiza Munir</i> <i>PLoS One</i> , Volume 16(12), Article Number e0261215 <b>Impact Factor:</b> 3.240   <b>Quartile:</b> 2   <b>Citations:</b> 42 <b>DOI:</b> <a href="https://doi.org/10.1371/journal.pone.0261215">10.1371/journal.pone.0261215</a>	2021
<b>Genetic gain and G × E interaction in bread wheat cultivars representing 105 years of breeding in Pakistan</b> <i>Uzma Hanif Alvina Gul Rabia Amir Faiza Munir Mark E. Sorrells Hugh G. Gauch Zahid Mahmood Abid Subhani Muhammad Imtiaz Awais Rasheed Hadi Alipour Zhonghu He</i> <i>Crop Science</i> , Volume 62, Issue 1, Pages 178-191 <b>Impact Factor:</b> 2.319   <b>Quartile:</b> 2   <b>Citations:</b> 10 <b>DOI:</b> <a href="https://doi.org/10.1002/csc2.20655">https://doi.org/10.1002/csc2.20655</a>	2021
<b>Potassium and salicylic acid function synergistically to promote the drought resilience through upregulation of antioxidant profile for enhancing potassium use efficiency and wheat yield</b> <i>Rabia Amir Fazal Munsif Umar Farooq Muhammad Arif Tariq Shah Muhammad Jehangir Sajjad Zaheer Kashif Akhtar Muhammad Shahid Khan Ijaz Ahmad Wiqar Ahmad Shamsher Ali</i> <i>Annals of Applied Biology</i> , Pages 1-10 <b>Impact Factor:</b> 2.750   <b>Quartile:</b> 2   <b>Citations:</b> 10 <b>DOI:</b> <a href="https://doi.org/10.1111/aab.12731">https://doi.org/10.1111/aab.12731</a>	2021
<b>Characterization of the genetic basis of local adaptation of wheat landraces from Iran and Pakistan using genome-wide association study</b> <i>Uzma Hanif Hadi Alipour Alvina Gul Kazi Li Jing Reza Darvishzadeh Rabia Amir Faiza Munir Muhammad Kashif Ilyas Abdul Ghafoor Sadar Uddin Siddiqui Amy Bernado Paul St. Amand Guihua Bai Awais Rasheed Zhonghu He Huihui Li Kai Sonder</i> <i>Plant Genome</i> , Article Number e20096, Pages 1-17 <b>Impact Factor:</b> 4.219   <b>Quartile:</b> 1   <b>Citations:</b> 10 <b>DOI:</b> <a href="https://doi.org/10.1002/tpg2.20096">DOI: 10.1002/tpg2.20096</a>	2021
<b>Genome-wide analysis, identification, evolution and genomic organization of dehydration responsive element-binding (DREB) gene family in <i>Solanum tuberosum</i></b> <i>Nida Mushtaq Faiza Munir Alvina Gul Rabia Amir Rehan Zafar Paracha</i> <i>PeerJ</i> , Volume 9, Article Number e11647 <b>Impact Factor:</b> 3.061   <b>Quartile:</b> 2   <b>Citations:</b> 26 <b>DOI:</b> <a href="https://doi.org/10.7717/peerj.11647">10.7717/peerj.11647</a>	2021

<b>Expression Characterization of Flavonoid Biosynthetic Pathway Genes and Transcription Factors in Peanut Under Water Deficit Conditions</b> <i>Ghulam Kubra Maryam Khan Faiza Munir Alvina Gul Tariq Shah Adil Hussain David Caparros-Ruiz Rabia Amir</i> <i>Frontiers in Plant Science</i> , Volume 12, Article Number 680368 <b>Impact Factor:</b> 6.627   <b>Quartile:</b> 1   <b>Citations:</b> 17 <b>DOI:</b> <a href="https://doi.org/10.3389/fpls.2021.680368">https://doi.org/10.3389/fpls.2021.680368</a>	2021
<b>Chemical and Biological Enhancement Effects of Biochar on Wheat Growth and Yield Under Arid Field Conditions</b> <i>Zarmeena Khan Muhammad Habib ur Rahman Ghulam Haider Rabia Amir Rao Muhammad Ikram Shakeel Ahmad Hannah Kate Schofield Bilal Riaz Rashid Iqbal Shah Fahad Rahul Datta Alaa Baazeem Ayman EL Sabagh Subhan Danish</i> <i>Sustainability</i> , Volume 13(11), Article Number 5890 <b>Impact Factor:</b> 3.889   <b>Quartile:</b> 2   <b>Citations:</b> 45 <b>DOI:</b> <a href="https://doi.org/10.3390/su13115890">https://doi.org/10.3390/su13115890</a>	2021
<b>Evaluating the cleavage efficacy of CRISPR-Cas9 sgRNAs targeting ineffective regions of Arabidopsis thaliana genome</b> <i>Afsheen Malik Alvina Gul Faiza Munir Rabia Amir Hadi Alipour Mustafeez Mujtaba Babar Syeda Marriam Bakhtiar Rehan Zafar Paracha Zoya Khalid Muhammad Qasim Hayat</i> <i>PeerJ</i> , Volume 9, Article Number e11409 <b>Impact Factor:</b> 3.061   <b>Quartile:</b> 2   <b>Citations:</b> 8 <b>DOI:</b> <a href="https://doi.org/10.7717/peerj.11409">https://doi.org/10.7717/peerj.11409</a>	2021
<b>Molecular characterization of Leucoanthocyanidin reductase and Flavonol synthase gene in Arachis hypogaea</b> <i>rabia amir Faiza Munir Alvina Gul Ghulam Kubra Maryam Khan Sidra Hussain Tooba Iqbal Jan Muhammad Hina Ali</i> <i>Saudi Journal of Biological Sciences</i> , Volume 28, Issue 4, Pages 2301-2315 <b>Impact Factor:</b> 4.052   <b>Quartile:</b> 2   <b>Citations:</b> 8 <b>DOI:</b> <a href="https://doi.org/10.1016/j.sjbs.2021.01.024">https://doi.org/10.1016/j.sjbs.2021.01.024</a>	2021
<b>Classification and Computational Analysis of Arabidopsis thaliana Sperm Cell-Specific F-Box Protein Gene 3p.AtFBP113</b> <i>Afsheen Malik Alvina Gul Rabia Amir Faiza Munir Mustafeez Mujtaba Babar Syeda Marriam Bakhtiar Muhammad Qasim Hayat Rehan Zafar Paracha Zoya Khalid Hadi Alipour</i> <i>Frontiers in Genetics</i> , Volume 11, Article Number 609668 <b>Impact Factor:</b> 4.599   <b>Quartile:</b> 2   <b>Citations:</b> 2 <b>DOI:</b> <a href="https://doi.org/10.3389/fgene.2020.609668">doi: 10.3389/fgene.2020.609668</a>	2020
<b>Isolation and functional characterization of an Ethylene Response Factor (RhERF092) from rose (Rosa hybrida)</b> <i>Rabia Amir Muhammad Ali Khan Muhammad Imtiaz Adil Hussain Fazal Jalal Sikandar Hayat Sayed Hussain Fazal Said Mehboob Alam</i> <i>Plant Cell, Tissue and Organ Culture (PCTOC)</i> , Pages 1-16 <b>Impact Factor:</b> 2.196   <b>Quartile:</b> 3   <b>Citations:</b> 4 <b>DOI:</b> <a href="https://doi.org/10.1007/s11240-019-01719-y">https://doi.org/10.1007/s11240-019-01719-y</a>	2019
<b>Timing and ecological priority shaped the diversification of sedges in the Himalayas</b> <i>Uzma Pedro Jiménez-Mejías Andrew L. Hipp Rabia Amir Muhammad Qasim Hayat</i> <i>PeerJ</i> , Volume: 7 Article Number: e6792 <b>Impact Factor:</b> 2.379   <b>Quartile:</b> 2   <b>Citations:</b> 8 <b>DOI:</b> <a href="https://doi.org/10.7717/peerj.6792">10.7717/peerj.6792</a>	2019
<b>Molecular characterization of 87 functional genes in wheat diversity panel and their association with phenotypes under well-watered and water-limited conditions</b> <i>Maria Khalid Fakiha Afza Abid Subhani Zahid Mahmood Xianchun Xia Awais Rasheed Zhonghu He Zubair Ahmed Alvina Gul rabia amir</i> <i>Frontier in Plant Sciences</i> , Volume 10, Article Number 717 <b>Impact Factor:</b> 4.402   <b>Quartile:</b> 1   <b>Citations:</b> 49 <b>DOI:</b> <a href="https://doi.org/10.3389/fpls.2019.00717">10.3389/fpls.2019.00717</a>	2019
<b>Pattern of Diversity among Pistillate Scales of the Western Himalayan Carex spp. (Cyperaceae): Micromorphological and Molecular Inferences</b> <i>Uzma Betty Strack Zahid Ullah Andrew L. Hipp Rabia Amir Muhammad Qasim Hayat</i> <i>International Journal of Agriculture and Biology</i> , Volume 21, Issue 3, Pages 659-666 <b>Impact Factor:</b> 0.822   <b>Quartile:</b> 3   <b>Citations:</b> 1 <b>DOI:</b> <a href="https://doi.org/10.17957/IJAB/15.0942">10.17957/IJAB/15.0942</a>	2019

<b>Karnal Bunt Resistance in Synthetic Hexaploid/Bread Wheat Derivatives</b>	2018
<i>Sameen Ruqia Imadi Rabia Amir Sumaira Salah-ud-Din Lodhi Peter John Abdul Mujeeb Kazi Alvina Gul</i> <i>NUST Journal of Natural Sciences</i> , Volume 4, Issue: 1, Pages .83-99	
<b>Impact Factor:</b> - <b>DOI:</b> NA	
<b>Characterization of Differentaegilopstauschii Accessions in Similar Durum Wheat Background</b>	2018
<i>Ghulam Kubra Rabia Amir Mehmoona Ilyas Fakiha Afzal Muhammad Jamil Attiq-ur-Rehman Rattu Shehzad Asad Muhammad Fayyaz Abdul Mujeeb-Kazi Alvina Gul</i> <i>NUST Journal of Natural Sciences</i> , Volume 4, Issue: 1, Pages 64-82	
<b>Impact Factor:</b> - <b>DOI:</b> NA	
<b>Characterization of Wheat Cell Wall Invertase Genes Associated with Drought Tolerance in Synthetic-Derived Wheat</b>	2018
<i>Maria Khalid Zoya Khalid Alvina Gul Rabia Amir Zubair Ahmad</i> <i>International Journal of Agriculture and Biology</i> , Volume 20(12), Pages 2677-2684	
<b>Impact Factor:</b> 0.802   <b>Quartile:</b> 3   <b>Citations:</b> 4 <b>DOI:</b> 10.17957/IJAB/15.0809	
<b>QTL mapping for seedling morphology under drought stress in wheat cross synthetic (W7984)/Opata</b>	2018
<i>Maria Khalid Alvina Gul Rabia Amir Mohsin Ali Fakiha Afzal Umar Masood Quraishi Zubair Ahmed Awais Rasheed</i> <i>Plant Genetic Resources:Characterization and Utilization</i> , Pages 1-8	
<b>Impact Factor:</b> 0.717   <b>Quartile:</b> 4   <b>Citations:</b> 10 <b>DOI:</b> 10.1017/S1479262118000023	
<b>Phenotypic and genotypic characterization of wheat landraces of Pakistan</b>	2014
<i>Rabia Amir Nasir M. Minhas Alvina Gul Sumaira Farrakh Ahmad Ali Hadi Bux A. Mujeeb-Kazi</i> <i>Emirates Journal of Food and Agriculture</i> , Volume 26 Issue 2 Pages 157-163 Special Issue SI	
<b>Impact Factor:</b> 0   <b>Citations:</b> 7 <b>DOI:</b> 10.9755/ejfa.v26i2.17008	
<b>Plant natural products: history, limitations and the potential of cambial meristematic cells</b>	2012
<i>BYUNG-WOOK YUN SUNMI HONG EUN-KYONG LEE ZEJUN YAN YOUNG-WOO JIN GARY J. LOAKE RABIA AMIR</i> <i>Biotechnology and Genetic Engineering Reviews</i> , Volume 28, Issue 1, Pages 47-59	
<b>Impact Factor:</b> 1.312   <b>Quartile:</b> 3   <b>Citations:</b> 42 <b>DOI:</b> 10.5661/bger-28-47	
<b>Cultured cambial meristematic cells as a source of plant natural products</b>	2010
<i>Eun-Kyong Lee Young-Woo Jin Joong Hyun Park Young Mi Yoo Sun Mi Hong Rabia Amir Zejun Yan Eunjung Kwon Alistair Elfick Simon Tomlinson Florian Halbritter Thomas Waibel Byung-Wook Yun Gary J Loake</i> <i>Nature Biotechnology</i> , Volume 28, Issue 11, Pages 1213-U111	
<b>Impact Factor:</b> 31.09   <b>Quartile:</b> 1   <b>Citations:</b> 162 <b>DOI:</b> 10.1038/nbt.1693	

## Conference Proceedings

<b>Cracking the plant stress code: Elevating oil quality and yield for sustainable harvests</b>	2024
<i>Rabia Amir</i> <i>The 5th Forum Conference 2024</i> , res.country(178,)	
<b>Citations:</b> N/A <b>DOI:</b> Nil	
<b>Expression profiling of potential flavonoid biosynthetic pathway genes in Arachis hypogaea under abiotic stress</b>	2017
<i>Rabia Amir</i> <i>International conference on tackling climatic change through plant breeding</i> , res.country(177,)	
<b>Citations:</b> N/A <b>DOI:</b> N/A	

## Book Chapters

<b>Signaling and Regulatory Pathways Between Plants and Microbial Communities Towards Environments</b>	2025
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<p><i>Maryam Khan Aroma Jannat Zuhra Qayyum Nosheen Fatima Muhammad Sayeed Akhtar Rabia Amir</i>  In: <i>Agricultural Biotechnology: Issues, Challenges, and Recent Developments</i>, 1st Edition, Chapter 6, Pages 131-153</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> <a href="https://doi.org/10.1201/9781003638087">https://doi.org/10.1201/9781003638087</a></p>	
<p><b>Current progress in CRISPR–Cas systems for cancer</b></p> <p><i>Hunaiza Fatima Hajira Ali Raja Rabia Amir Alvina Gul Mustafeez Mujtaba Babar Jayakumar Rajadas</i>  In: <i>Progress in Molecular Biology and Translational Science</i>, Chapter: 09, Volume: 208, Pages: 211-229</p> <p><b>Citations:</b> 1</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/bs.pmbts.2024.07.007">https://doi.org/10.1016/bs.pmbts.2024.07.007</a></p>	2024
<p><b>Genome engineering and bioethics</b></p> <p><i>Kiran Khurshid Rabia Amir Alvina Gul Wajahat Maqsood M. Awais Junaid Faiq M. Sabih Hina Javed</i>  In: <i>Book on Targeted Genome Engineering via CRISPR/Cas9 in Plants</i>, 1st Edition, Chapter 22, Pages: 421-432</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-443-26614-0.00021-7">https://doi.org/10.1016/B978-0-443-26614-0.00021-7</a></p>	2024
<p><b>Industrial applications of genetic engineering</b></p> <p><i>Rabia Amir Anum Akram Zeeshan Zafar Sidra Fatima Qurat ul ain Sani</i>  In: <i>Book on Targeted Genome Engineering via CRISPR/Cas9 in Plants</i>, 1st Edition, Chapter 10, Pages 393-408</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-443-26614-0.00006-0">https://doi.org/10.1016/B978-0-443-26614-0.00006-0</a></p>	2024
<p><b>Genome engineering in sorghum</b></p> <p><i>Maria Gilani Qurat Ul Ain Ali Faiza Munir Sarah Fatima Alvina Gul Rabia Amir Muhammad Ammar Ashar Hafiz Imran Fakhar</i>  In: <i>Book on Targeted Genome Engineering via CRISPR/Cas9 in Plants</i>, 1st Edition, Chapter 15, Pages 297-311</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-443-26614-0.00009-6">https://doi.org/10.1016/B978-0-443-26614-0.00009-6</a></p>	2024
<p><b>Genomic engineering in peanut</b></p> <p><i>Ahmad Ali Rabia Amir Alvina Gul Faiza Munir Kainat Ahmad Anum Akram</i>  In: <i>Book on Targeted Genome Engineering via CRISPR/Cas9 in Plants</i>, 1st Edition, Chapter 8, Pages 159-175</p> <p><b>Citations:</b> 1</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-443-26614-0.00018-7">https://doi.org/10.1016/B978-0-443-26614-0.00018-7</a></p>	2024
<p><b>Genome engineering in cotton (<i>Gossypium hirsutum</i>)</b></p> <p><i>Maria Sharif Uzma Maria Abdul Salam Afsheen Malik Shahrukh Khan Kiran Kainat Sherin Rabia Amir Sami Ullah Jan Alvina Gul Muhammad Jamil</i>  In: <i>Book on Targeted Genome Engineering via CRISPR/Cas9 in Plants</i>, 1st Edition, Chapter 2, Pages</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> 10.1016/B978-0-443-26614- 0.00012-6</p>	2024
<p><b>Genetic Transformation Methods in Cereal Crops</b></p> <p><i>Noor-ul-Ain Malik Faiza Munir Saba Azeem Rabia Amir Maria Gillani Alvina Gul Aneela Mustafa Nosheen Fatima</i>  In: <i>Book on Cereal Crops: Genetic Resources and Breeding Techniques</i>, 1st Edition, Chapter 12, Pages 269-290</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> 10.1201/9781003250845-12</p>	2023
<p><b>Metabolomics-Assisted Breeding for Enhancing Yield and Quality of Cereals</b></p> <p><i>Qurat ul Ain Sani Nosheen Fatima Qurat ul Ain Ali Hira Rimsha Azhar Midhat Mahboob Salman Nawaz Faiza Munir Rabia Amir</i>  In: <i>Book on Cereal Crops: Genetic Resources and Breeding Techniques</i>, 1st Edition, Chapter 9, Pages 173-200</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> 10.1201/9781003250845-9</p>	2023
<p><b>Metabolic Responses in Plants under Abiotic Stresses</b></p> <p><i>Ahmad Ali Kiran Khurshid Namrah Ahmed Nida Mushtaq Rabia Amir Faiza Munir</i>  In: <i>Book on Cereal Crops: Genetic Resources and Breeding Techniques</i>, 1st Edition, Chapter 10, Pages 201-233</p> <p><b>Citations:</b> N/A</p> <p><b>DOI:</b> 10.1201/9781003250845-10</p>	2023
<p><b>Phytohormones, plant growth and development</b></p> <p><i>Noor Ul Ain Malik Oushna Fajer Laiba Amin Attiya Rubab Khalid Nabia Khan Muhammad Faraz Bhatti Faiza Munir Ghulam Haider Rabia Amir Alvina Gul</i>  In: <i>Phytohormones and Stress Responsive Secondary Metabolites</i>, Chapter 14, Page:175-186</p> <p><b>Citations:</b> 3</p> <p><b>DOI:</b> 10.1016/B978-0-323-91883-1.00014-0</p>	2023

<b>Phenomics</b> <i>Saima Siddique Madeeha Hamid Alvina Gul Namra Haq Rabia Amir Volkan Altay Munir Ozturk</i> In: <i>Book on Introduction and Application of Organic Fertilizers as Protectors of Our Environment</i> , Chapter 13, Pages 307-339 <b>Citations:</b> N/A <b>DOI:</b> DOI: ----	2022
<b>Organelleomics: Mitochondria and Chloroplast of Plants</b> <i>Bukhtawar Fatima Tahira Khan Namra Haq Rabia Amir Alvina Gul Volkan Altay Munir Ozturk</i> In: <i>Book on Introduction and Application of Organic Fertilizers as Protectors of Our Environment</i> , Chapter 21, Pages 471-493 <b>Citations:</b> N/A <b>DOI:</b> Doi-1-	2022
<b>Biochemical and Molecular Mechanisms of Abiotic Stress Tolerance</b> <i>Maryam Khan Arooma Jannat Rabia Amir Faiza Munir Nosheen Fatima</i> In: <i>Book on Plant Ecophysiology and Adaptation under Climate Change: Mechanisms and Perspectives II</i> , Chapter 9, Pages 187-230 <b>Citations:</b> 16 <b>DOI:</b> 10.1007/978-981-15-2172-0	2020
<b>Plant Signalling Under Adverse Environment</b> <i>Qurat-ul-Ain Sani Wajahat Maqsood Adil Hussain Rabia Amir Faiza Munir</i> In: <i>Book on Plant Ecophysiology and Adaptation under Climate Change: Mechanisms and Perspectives I</i> , Chapter 21, Pages 605-624 <b>Citations:</b> 16 <b>DOI:</b> 10.1007/978-981-15-2156-0	2020
<b>Overview of the prospective strategies for conservation of genomic diversity in wheat landraces</b> <i>Sumaira Salahuddin Lodhi Shafia Maryam Khola Rafique Atif Shafique Zeeshan Ali Yousaf Abdul Mohaimen Talha Alvina Gul Rabia Amir</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat - 1st Edition</i> , Chapter 21, Pages 293-309 <b>Citations:</b> 11 <b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-12-819527-7.00021-2">https://doi.org/10.1016/B978-0-12-819527-7.00021-2</a>	2020
<b>Genomic selection in wheat breeding</b> <i>Jin Sun Maryam Khan Rabia Amir Alvina Gul</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat</i> , Chapter 23, Pages 321-330 <b>Citations:</b> 6 <b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-12-819527-7.00023-6">https://doi.org/10.1016/B978-0-12-819527-7.00023-6</a>	2020
<b>Next-generation sequencing in bread wheat</b> <i>Kainat Rauf Rabia Rahman Adeena Saeed Muhammad Ali Fatima Noureen Rabia Amir Alvina Gul</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat</i> , Chapter 22, Pages 311-320 <b>Citations:</b> 3 <b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-12-819527-7.00022-4">https://doi.org/10.1016/B978-0-12-819527-7.00022-4</a>	2020
<b>Wheat genomics and genome editing</b> <i>Nida Liaqat Ayesha Liaqat Muhammad Ali Zuhra Qayyum Raffia Siddique Hikmet Budak Rabia Amir Alvina Gul</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat</i> , Chapter 21, Pages 331-346 <b>Citations:</b> 2 <b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-12-819527-7.00024-8">https://doi.org/10.1016/B978-0-12-819527-7.00024-8</a>	2020
<b>Molecular mechanism of drought tolerance in wheat</b> <i>Insha Zahoor Humna Hasan Anum Khursheed Mohsin Ali Fakiha Afzal Ghulam Kubra Ammaila Basharat Fabiha Aziz Fizla Zarrar Rabia Amir Alvina Gul</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat</i> , Chapter 8, 129-154 <b>Citations:</b> 5 <b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-12-819527-7.00008-X">https://doi.org/10.1016/B978-0-12-819527-7.00008-X</a>	2020
<b>Role of osmoprotectants in salinity tolerance in wheat</b> <i>Muhammad Nadeem Mohsin Ali Ghulam Kubra Azam Fareed Humna Hasan Anum Khursheed Sami Ullah Khan Rabia Amir Nosheen Fatima Alvina Gul</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat</i> , Chapter 6, Pages 93-106 <b>Citations:</b> 15 <b>DOI:</b> <a href="https://doi.org/10.1016/B978-0-12-819527-7.00006-6">https://doi.org/10.1016/B978-0-12-819527-7.00006-6</a>	2020
<b>Drought-responsive ESTs in wheat</b> <i>Mohsin Ali Humna Hasan Khola Rafique Fakiha Afzal Ghulam Kubra Kandeel Shafique Sarah Waseem Rameeza Hasan Saneela Imran Zeeshan Ahmad Syed Hammad Raza Tayyaba Fayaz Rabia Amir Alvina Gul</i> In: <i>Book on Climate Change and Food Security with Emphasis on Wheat - 1st Edition</i> , Chapter 10, Pages 169-176 <b>Citations:</b> 1	2020



**DOI:** <https://doi.org/10.1016/B978-0-12-819527-7.00010-8>

**Role of osmoprotectants and drought tolerance in wheat**

2020

*Humna Hasan Uzma Mohsin Ali Ghulam Kubra Fatima tuz Zahra Khan Sehar Yousaf Komal Binte Ajmal Hasan Naseer Wajeesh Khan Rumana Keyani Alvina Gul Kazi Rabia Amir*

In: *Book on Climate Change and Food Security with Emphasis on Wheat, 1st Edition*, Chapter 13, 207-216

**Citations:** N/A

**DOI:** <http://doi.org/10.1016/B978-0-12-819527-7.00013-3> 6

**Pan-genomics of plants and its applications**

2020

*Noor Ul Saba Muneeba Arveen Amnah Siddiqua Jamil Ahmad Faiza Munir Rabia Amir*

In: *Book on Pan-genomics: Applications, Challenges, and Future Prospects*, Chapter 14, Pages 285-306

**Citations:** 3

**DOI:** <https://doi.org/10.1016/B978-0-12-817076-2.00014-7>

**Pan-genomics of plant pathogens and its applications**

2020

*Qurat-ul-Ain Sani Wajahat Maqsood Nosheen Fatima Amnah Siddiqua Jamil Ahmad Rabia Amir Faiza Munir*

In: *Book on Pan-genomics: Applications, Challenges, and Future Prospects*, Chapter 6, Pages 121-145

**Citations:** 6

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**ROS Mediated Plant Defense Against Abiotic Stresses**

2019

*Rabia Amir Sidra Hussain Hafiza Noor-ul-Ain Adil Hussain Byung-Wook Yun*

In: *Book on Plant Biotechnology: Progress in Genomic Era*, Pages 481-515

**Citations:** 7

**DOI:** [https://doi.org/10.1007/978-981-13-8499-8\\_21](https://doi.org/10.1007/978-981-13-8499-8_21)

**Role of Signaling Pathways in Improving Salt Stress in Plants**

2019

*Rabia Amir Faiza Munir Ghulam Kubra Irum Nauman Norina Noor*

In: *Book on Salt Stress, Microbes, and Plant Interactions: Mechanisms and Molecular Approaches*, Pages 183-211

**Citations:** 5

**DOI:** [https://doi.org/10.1007/978-981-13-8805-7\\_9](https://doi.org/10.1007/978-981-13-8805-7_9)

**Use of Plant Hormones for the Improvement of Plant Growth and Production Under Salt Stress**

2019

*Rabia Amir Faiza Munir Maryam Khan Tooba Iqbal*

In: *Salt Stress, Microbes, and Plant Interactions: Causes and Solution*, Chapter 3, Pages 59-90

**Citations:** 9

**DOI:** [10.1007/978-981-13-8801-9\\_3](https://doi.org/10.1007/978-981-13-8801-9_3)

**Plant Signaling Molecules and Cadmium Stress Tolerance**

2019

*Ghulam Kubra Tooba Iqbal Maryam Khan Rabia Amir Faiza Munir*

In: *Cadmium Tolerance in Plants*, Chapter 14, Pages 367-399

**Citations:** 5

**DOI:** [10.1016/B978-0-12-815794-7.00014-X](https://doi.org/10.1016/B978-0-12-815794-7.00014-X)

**Influence of Phytoprotectants on Abiotic Stress Signaling in Plants**

2019

*Rumana Keyani Tooba Iqbal Maryam Khan Rabia Amir Faiza Munir*

In: *Plant Tolerance to Environmental Stress - Role of Phytoprotectants*, Chapter 2, Pages 9-28

**Citations:** N/A

**DOI:** [10.1201/9780203705315](https://doi.org/10.1201/9780203705315)

**Stress Signaling Under Metal and Metalloid Toxicity**

2018

*Rabia Amir Saman Taufiq Norina Noor Irum Nauman Faiza Munir Rumana Keyani Ayesha T. Tahir*

In: *Book on Plants Under Metal and Metalloid Stress: Responses, Tolerance and Remediation*, Pages 149-184

**Citations:** 10

**DOI:** [10.1007/978-981-13-2242-6\\_5](https://doi.org/10.1007/978-981-13-2242-6_5)

**Plants Adaptive Mechanisms under Arsenic Pollution**

2018

*Rabia Amir Momina Hayat Irum Nauman Marrium Khan Faiza Munir*

In: *Book on Mechanisms of Arsenic Toxicity and Tolerance in Plants*, Pages 171-190

**Citations:** 3

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**Editorial Activities**

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<b>PLANTA</b>	2025
Reviewed Papers for Journals	
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<b>Environmental Pollution</b>	2024
Reviewed Papers for Journals	
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<b>BMC Plant Biology</b>	2024
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<b>Journal of Environmental Management</b>	2024
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