

Muhammad Tahir

Professor

Atta-Ur-Rahman School of Applied Biosciences

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About

Dr. Muhammad Tahir is working as Professor in the Atta-Ur-Rahman School of Applied Biosciences. Dr. Muhammad Tahir has a PhD in Plant Virology. Dr. Muhammad Tahir has published 42 research articles & conference papers having a citation count of 604, carried out 10 projects and filed 3 intellectual property.

Qualifications

PhD in Plant Virology University of the Punjab , Pakistan	2004 - 2009
MSc in Botany University of the Punjab , Pakistan	1996 - 1998
BSc in Botany, Zoology, Geography University of the Punjab , Pakistan	1993 - 1995
F.Sc in Pre-Medical Board of Intermediate and Secondary Education, Lahore , Pakistan	1991 - 1993
Matric (SSC) in Science Board of Intermediate and Secondary Education, Lahore , Pakistan	1989 - 1991

Experience

Professor Atta-Ur-Rahman School of Applied Biosciences	2020- Present
Associate Professor Atta-Ur-Rahman School of Applied Biosciences	2015 - 2020
Associate Professor Atta-Ur-Rahman School of Applied Biosciences	2015 - 2015
Assistant Professor Atta-Ur-Rahman School of Applied Biosciences	2012 - 2015
Assistant Professor NUST Centre for Virology And Immunology	2010 - 2012
School of Biological Sciences, University of the Punjab University of the Punjab , School of Biological Sciences, University of the Punjab, Lahore , Pakistan	2009 - 2010
School of Biological Sciences, University of the Punjab Uni. of the Punjab , School of Biological Sciences, University of the Punjab, Lahore, Pakistan	2008 - 2009

Awards

Best Researcher Award	2014
Best Researcher Award for the year 2013-2014 was given by ASAB	
Borlaug Fellowship award	2014
2014 Norman E. Borlaug International Agricultural Science and Technology Fellowship Program	
Abdus Salam Prize	2011
Abdus Salam Prize was awarded for achievements in science for young Pakistani scientist - biology 2010	
IRSIP Scholarship	2007
Award of Scholarship under International Research Support Initiative Program by Higher Education Commission of Pakistan	
KSBMB Travel Award	2007
19th FAOBMB Seol Conference Organizing Committee and the local FAOBMB constituent Society, Korean Society for Biochemistry and Molecular Biology (KSBMB) awarded KSBMB travel award.	
Travel Grant	2007
Travel grant was awarded by higher Education Commission of Pakistan to attend International Geminivirus symposium in Brazil.	
Young Scientist Award	2006
Young Scientist award was given by IUBMB and FAOBMB	
Roll of Honour	1997
Roll of Honour was awarded by Govt. Forman Christian College, Lahore on securing second position in MSc.	

Research Projects

National Projects

Transgenic resistant cotton development through virus induced programmed cells death (VIPCD)- A novel concept (Phase-I) Funding Agency: NUST Amount: PKR 21,806,000.00 Status: Completed	2024
Sugarcane productivity enhancement by development of transgenic virus resistance through expression of hairpinRNA (hpRNA) carrying Sugarcane mosaic virus derived sequences Funding Agency: HEC Amount: PKR 5,439,498.00 Status: Completed	2017
Sugarcane Productivity Enhancement by Development of Transgenic Virus Resistance through Expression of HairpinRNA Carrying Sugarcane Mosaic Virus Derived Sequences Funding Agency: HEC Amount: PKR 8,786,000.00 Status: Completed	2017
Development of Cotton infecting Begomovirus induced cell death via a modified beta satellite containing the cyt-c gene and monoclonal antibodies for CLCVs (ID1198-13) Funding Agency: USDA / ICARDA Amount: PKR 38,412,000.00 Status: Completed	2014
Development of cotton-infecting begomovirus induced cell death via a modified betasatellite containing the Cyt c gene and monoclonal antibodies against begomoviruses. Funding Agency: ICARDA-USDA Amount: PKR 26,412,000.00 Status: Completed	2014
Development of transgenic resistance in Solanum tuberosum L. against abiotic stress, by the expression of DREB protein gene. Funding Agency: HEC Amount: PKR 3,137,000.00 Status: Completed	2018
Isolation and characterization of the gene(s) involved in salt-stress signaling in potato. Funding Agency: Higher Education Commission, Islamabad Amount: PKR 455,000.00 Status: Completed	2016
Development of transgenic resistance in Solanum tuberosum L. against abiotic stress, by the expression of DREB protein gene Funding Agency: HEC Amount: PKR 4,720,000.00 Status: Approved_inprocess	2018
Sugarcane productivity enhancement by development of transgenic Funding Agency: HEC Amount: PKR 5,439,000.00 Status: Completed	2017
Development and Validation of transgenic Virus Resistance in Nicotiana Benthamiana By Expression of Artificial Micro RNA (amiRNA) Carrying Begomovirus (Tomato Leaf Curl New Delhi Virus) Derived Sequences Funding Agency: HEC Amount: PKR 7,778,000.00 Status: Completed	2011

International Projects

Research Articles

Serological surveillance of Crimean-Congo Hemorrhagic Fever Virus in animals using targeted Enzyme Immuno Assay <i>Maaza Sana Sercan Keskin Muhammad Tahir Muhammad Faheem Ali Zohaib Mehmet Ziya Doymaz Aneela Javed</i> <i>Pakistan Veterinary Journal</i> , Pages 1-10 Impact Factor: 5.400 Quartile: 1 DOI: 10.29261/pakvetj/2025.208	2025
Development of an immunodiagnostic assay for the detection of Sugarcane mosaic virus <i>Hafiz Muhammad Khalid Najam Us Sahar Sadaf Zaidi Naeem Rashid Muhammad Tahir</i> <i>Turkish Journal of Biology</i> , Volume:48, No.06, Pages:390-400 Impact Factor: 1.1 Quartile: 3 DOI: https://doi.org/10.55730/1300-0152.2714	2024
Plant growth promoting Dictyosphaerium DHM2 derived magnesium peroxide nanoparticles with antibacterial, antioxidant and photocatalytic properties <i>Kausar Chaudhary Shafia Maryam Sajid Iqbal Abdullah Ahmad Muhammad Tahir Hussnain Ahmed Janjua</i> <i>Algal Research</i> , Volume 82, Article Number 103647 Impact Factor: 4.600 Quartile: 1 DOI: https://doi.org/10.1016/j.algal.2024.103647	2024
Cloning and overexpression of the DREB30 gene enhances drought and osmotic stress tolerance in transgenic potato <i>Qurat Ul Ain Ali Faiza Munir Muhammad Tahir Rabia Amir Alvina Gul</i> <i>Journal of Plant Interactions</i> , Volume 19, No. 1, Article Number 2364656 Impact Factor: 2.600 Quartile: 2 Citations: 4 DOI: 10.1080/17429145.2024.2364656	2024
In Vivo Validation of Novel Synthetic tbp1 Peptide-Based Vaccine Candidates against Haemophilus influenzae Strains in BALB/c Mice <i>Naseeha Bibi Amtul Wadood Wajeeha Mamuna Mukhtar Muhammad Tahir Najam Us Sahar Sadaf Zaidi</i> <i>Vaccines</i> , Volume: 11, Issue: 11, Article Number:1651 Impact Factor: 7.8 Quartile: 1 Citations: 2 DOI: 10.3390/vaccines11111651	2023
Development of polyclonal antibodies against the recombinant protein of Barley yellow dwarf virus <i>Muhammad Khalid Najam us Sahar Sadaf Zaidi Naeem Rashid Muhammad Tahir</i> <i>Asian Journal of Agriculture and Biology</i> , Pages 1-15 Impact Factor: 1.600 Quartile: 2 Citations: 5 DOI: DOI: 10.35495/ajab.2023.127	2023
Genetic diversity and molecular evolution of sugarcane mosaic virus, comparing whole genome and coat protein sequence phylogenies <i>Muhammad Tahir Muhammad Khalid Venura Herath Khadija Ahmad Jeanmarrie Verchot Jeanmarrie Verchot</i> <i>Archives of Virology</i> , Vol:167, Pages:2239–2247 Impact Factor: 2.685 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1007/s00705-022-05572-x	2022
Genome-wide promoter analysis, homology modeling and protein interaction network of Dehydration Responsive Element Binding (DREB) gene family in Solanum tuberosum <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 Impact Factor: 3.240 Quartile: 2 Citations: 42 DOI: 10.1371/journal.pone.0261215	2021
In silico Evaluation of Molecular Virus-Virus Interactions Taking Place Between Cotton leaf curl Kokhran virus- Burewala strain and Tomato leaf curl New Delhi virus. <i>Nida Fatima Ali Rehan Zafar Paracha Muhammad Tahir</i> <i>PeerJ</i> , Volume 9, Article Number e12018 Impact Factor: 3.061 Quartile: 2 Citations: 1 DOI: https://doi.org/10.7717/peerj.12018	2021
Vaccinomics-driven proteome-wide screening of Haemophilus influenzae for the prediction of common putative vaccine candidates <i>Naseeha Bibi Najam us Sahar Sadaf Zaidi Prof Muhammad Tahir Mustafeez Mujtaba Babar</i> <i>Canadian Journal of Microbiology</i> , Volume 67(11), Pages 799-812	2021

Impact Factor: 2.419 Quartile: 3 Citations: 3 DOI: 10.1139/cjm-2020-0535	
Complete genome sequence of hollyhock vein yellowing virus, a novel monopartite begomovirus infecting hollyhock in Pakistan. <i>Azkie Khan Yaqoot Imtiaz Muhammad Tahir Rob W. Briddon</i> <i>Archives of Virology</i> , Volume 166, Pages 2607-2610 Impact Factor: 2.574 Quartile: 3 Citations: 2 DOI: https://doi.org/10.1007/s00705-021-05134-7	2021
Chloroplast Genome Sequence of <i>Artemisia scoparia</i>: Comparative Analyses and Screening of Mutational Hotspots <i>Shabina Iram Muhammad Qasim Hayat Abdullah Ibrar Ahmed Shabina Iram Muhammad Tahir Alvina Gul Kazi Abdullah Ibrar Ahmed</i> <i>Plants</i> , Vol.8(11), Article Number 476 Impact Factor: 2.762 Quartile: 1 Citations: 50 DOI: https://doi.org/10.3390/plants8110476	2019
Identification of a new begomovirus infecting <i>Duranta repens</i> in Pakistan <i>Sidra Anwar Muhammad Tahir</i> <i>Archives of Virology</i> , Volume 163, Issue 3, Pages 809-813 Impact Factor: 2.261 Quartile: 3 Citations: 5 DOI: 10.1007/s00705-017-3672-y	2018
Occurrence of a recombinant molecule carrying sequences derived from an alphasatellite and the helper virus in cotton affected with cotton leaf curl disease <i>Malik Nawaz Shuja Muhammad Tahir Rob W. Briddon</i> <i>Tropical Plant Pathology</i> , NULL Impact Factor: 0.784 Quartile: 4 Citations: 1 DOI: 10.1007/s40858-017-0161-5	2017
Isolation and identification of flavonoids from anticancer and neuroprotective extracts of <i>Trigonella foenum graecum</i> <i>Shabina Ishtiaq Ahmed Muhammad Qasim Hayat Saadia Zahid Muhammad Tahir1 Qaisar Mansoor Muhammad Ismail Kristen Keck Robert Bates</i> <i>Tropical Journal of Pharmaceutical Research</i> , Volume: 16 Issue: 6 Pages: 1391-1398 Impact Factor: 0.444 Quartile: 4 Citations: 17 DOI: 10.4314/tjpr.v16i6.25	2017
Phylogenetic and Genome-Wide Pairwise Distance Analysis of the Genus <i>Luteovirus</i> <i>Muhammad Ali Muhammad Tahir Shahid Hameed</i> <i>Pakistan Journal of Agricultural Sciences</i> , Volume: 54 Issue: 2 Pages: 363-371 Impact Factor: 0.677 Quartile: 3 Citations: 3 DOI: DOI:10.21162/PAKJAS/17.4590	2017
Characterization of Coat Protein (CP) Gene of Sugarcane Mosaicvirus (SCMV) From Isolates of Pakistan and Its Phylogenetic Relationships <i>Sehrish Akbar Muhammad Tahir S. Afghan</i> <i>Journal of Animal and Plant Sciences</i> , Volume 27, Issue 1, Pages 268-276, February 2017 Impact Factor: 0.407 Quartile: 3 DOI: http://www.thejaps.org.pk/docs/v-27-1/33.pdf	2017
Expression Analysis of Hairpin RNA Carrying Sugarcane mosaic virus (SCMV) Derived Sequences and Transgenic Resistance Development in a Model Rice Plant <i>Muhammad Tahir Sehrish Akbar Ming-Bo Wang Qing Liu</i> <i>BioMed Research International</i> , Article Number: 1646140 Impact Factor: 2.583 Quartile: 2 Citations: 17 DOI: 10.1155/2017/1646140	2017
Pharmacologically active flavonoids from the anticancer, antioxidant and antimicrobial extracts of <i>Cassia angustifolia</i> Vahl <i>Muhammad Tahir Muhammad Qasim Hayat Shabina Ishtiaq Ahmed Qaisar Mansoor Muhammad Ismail Kristen Keck Robert B. Bates</i> <i>BMC Complementary and Alternative Medicine</i> , Volume: 16, Article Number: 460, Impact Factor: 2.288 Quartile: 1 Citations: 197 DOI: 10.1186/s12906-016-1443-z	2016
Cloning and Partial Characterizaion of Cotton Leaf Curl Burewala Virus from Khanewal <i>Fizza Akhter Butt Muhammad Tahir</i>	2015

Impact Factor: 0

DOI: NA

Ageratum enation virus-A Begomovirus of Weeds with the Potential to Infect Crops

2015

Muhammad Tahir Imran Amin Muhammad Saleem Haider Shahid Mansoor Rob W. Briddon

Viruses-Basel , Volume 7, Issue 2, Pages 647-665

Impact Factor: 3.042 | **Quartile:** 2 | **Citations:** 31

DOI: 10.3390/v7020647

Global geno-proteomic analysis reveals cross-continental sequence conservation and druggable sites among influenza virus polymerases

2014

Mustafeez Mujtaba Babar Najam-us-Sahar Sadaf Zaidi Muhammad Tahir

Antiviral Research , Volume 112, Pages 120-13

Impact Factor: 3.938 | **Quartile:** 1 | **Citations:** 5

DOI: 10.1016/j.antiviral.2014.10.013

Luteovirus: insights into pathogenicity

2014

Muhammad Ali Shahid Hameed Muhammad Tahir

Archives of Virology , Volume 159, Issue 11, Pages: 2853-2860

Impact Factor: 2.390 | **Quartile:** 3 | **Citations:** 31

DOI: 10.1007/s00705-014-2172-6

Identification of a distinct strain of cotton leaf curl Burewala virus

2014

Malik Nawaz Shuja Rob W. Briddon Muhammad Tahir

Archives of Virology , Volume: 159 Issue: 10 Pages: 2787-2790

Impact Factor: 2.390 | **Quartile:** 3 | **Citations:** 9

DOI: 10.1007/s00705-014-2097-0

In Silico Identification and Conservation Analysis of B-cell and T-Cell Epitopes of Hepatitis C Virus 3a Genotype Enveloped Glycoprotein 2 From Pakistan: A Step Towards Heterologous Vaccine Design

2014

Aqsa Ikram Sadia Anjum Muhammad Tahir

Hepatitis Monthly , Volume 14, Issue 6, Article Number e9832

Impact Factor: 1.932 | **Quartile:** 4 | **Citations:** 16

DOI: 10.5812/hepatmon.9832

Development of Robust in Vitro Serine Protease Assay based on Recombinant Pakistani HCV NS3-4A Protease

2011

Ishtiaq Qadri Muhammad Tahir Kaneez Fatima

Journal of Virus Research , Volume 160, Issues 1-2, Pages 230-237

Impact Factor: 2.941 | **Quartile:** 2 | **Citations:** 7

DOI: 10.1016/j.virusres.2011.06.020

An efficient, short and costeffective regeneration system for transformation studies of Sugarcane (*Saccharum officinarum* L.).

2011

M. SALEEM HAIDER SHAHID AFGHAN HAROON RIAZ M. TAHIR M. ARSHAD JAVED NAEEM RASHID JAVED IQBAL

Pakistan journal of Botany , Volume 43, Issue 2, Pages 1157-1162

Impact Factor: 0.907 | **Quartile:** 3

DOI: -

Identification of two sugarcane mosaic virus (SCMV) variants from naturally infected sugarcane crop in Pakistan.

2011

SHAHID AFGHAN M. TAHIR M. ARSHAD JAVED M. SALEEM HAIDER HAROON RIAZ NAEEM RASHID JAVED IQBAL

Pakistan Journal of Botany , Volume 43, Issue 2, Pages 1157-1162

Impact Factor: 0.907 | **Quartile:** 3

DOI: -

First report of Squash leaf curl China virus in Pakistan

2010

M. Tahir M. S. Haider R. W. Briddon

Australasian Plant Disease Notes , Volume 5, Issue 1, Pages 21–24

Impact Factor: 0 | **Citations:** 24

DOI: 10.1071/DN10009

Complete nucleotide sequences of a distinct bipartite begomovirus, bitter gourd yellow vein virus, infecting *Momordica charantia*

2010

<p><i>Muhammad Tahir Muhammad Saleem Haider Rob W. Briddon</i> <i>Archives of Virology</i>, Volume 155, Issue 11, Pages 1901-1905</p> <p>Impact Factor: 2.209 Quartile: 3 Citations: 13 DOI: 10.1007/s00705-010-0819-5</p>	2010
<p>Chili leaf curl betasatellite is associated with a distinct recombinant begomovirus, Pepper leaf curl Lahore virus, in Capsicum in Pakistan.</p> <p><i>Muhammad Tahir Muhammad Saleem Haider Rob W. Briddon</i> <i>Virus Research</i>, Volume 149, Issue 1, Pages 109-114</p> <p>Impact Factor: 2.905 Quartile: 2 Citations: 17 DOI: 10.1016/j.virusres.2009.12.007</p>	
<p>Association of a distinct begomovirus and betasatellite with leaf curl symptoms of <i>Pedilanthus tithymaloides</i>.</p> <p><i>Muhammad Tahir Muhammad Saleem Haider Javed Iqbal Rob William Briddon</i> <i>Journal of Phytopathology</i>, Volume 157, Issue 3, Pages 188-193</p> <p>Impact Factor: 0.983 Quartile: 3 Citations: 27 DOI: 10.1111/j.1439-0434.2008.01464.x</p>	2009
<p>First report of a begomovirus infecting the ornamental plant <i>Vinca minor</i> L.</p> <p><i>M. Saleem Haider M. Tahir A. Saeed A. Saeed R. Parveen N. Rashid</i> <i>AUSTRALASIAN PLANT DISEASE NOTES</i>, Volume 3, Issue 1, Pages150–151</p> <p>Impact Factor: 0 DOI: 10.1007/BF03211274</p>	2008
<p>Coat protein gene sequence analysis of three begomovirus isolates from Pakistan and their affinities. with other begomoviruses</p> <p><i>M. S. HAIDER M. TAHIR A. A. F. EVANS P. G. MARKHAM</i> <i>Pakistan Journal of Zoology</i>, Volume 39, Issue 3, Pages 165-170</p> <p>Impact Factor: 0.105 Quartile: 4 DOI: -</p>	2007
<p>First report of a begomovirus associated with leaf curl disease of bell pepper in Pakistan</p> <p><i>Muhammad Tahir M. S. Haider</i> <i>Plant pathology</i>, Volume 55, Issue 4, Pages 570-570</p> <p>Impact Factor: 2.198 Quartile: 1 Citations: 3 DOI: 10.1111/j.1365-3059.2006.01374.x</p>	2006
<p>First report of Tomato leaf curl New Delhi virus infecting <i>Eclipta prostrata</i> in Pakistan</p> <p><i>M. S. Haider M. Tahir S. Latif R. W. Briddon</i> <i>Plant pathology</i>, Volume 55, Issue 2, Pages 285-285</p> <p>Impact Factor: 2.198 Quartile: 1 Citations: 26 DOI: 10.1111/j.1365-3059.2005.01278.x</p>	2006
<p>First report of Tomato leaf curl New Delhi virus infecting bitter gourd in Pakistan</p> <p><i>Muhammad Tahir M. S. Haider</i> <i>Plant pathology</i>, Volume 54, Issue 6, Pages 807-807</p> <p>Impact Factor: 1.718 Quartile: 1 Citations: 40 DOI: 10.1111/j.1365-3059.2005.01215.x</p>	2005

Book Chapters

<p>Genetic engineering techniques in potato</p> <p><i>Muhammad Abu Bakar Zia Muhammad Ijaz Sami-ul-Allah Roohi Aslam Muhammad Naeem Alvina Gul Razmia Sabahat Butt Muhammad Tahir</i> In: <i>Book on Targeted Genome Engineering via CRISPR/Cas9 in Plants</i>, 1st Edition, Chapter 7, Pages 135-157</p> <p>Citations: N/A DOI: https://doi.org/10.1016/B978-0-443-26614-0.00020-5.</p>	2024
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Editorial Activities

<p>NUST Journal of Natural Sciences</p> <p>Edited Journal Issue / Proceeding / Book</p> <p>Impact Factor: Y-category</p>	2024
<p>Archives of Microbiology</p>	2024

Reviewed Papers for Journals Impact Factor: 2.3	
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y-category	2024
NUST Journal of natural sciences Reviewed Papers for Journals Impact Factor: N/A	2024
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y-category	2024
NUST Journal of Natural Science Reviewed Papers for Journals Impact Factor: Y-Category	2024
NUST Journal of Natural Sciences Reviewed Papers for Journals Impact Factor: N/A	2024
Journal of Plant Pathology Reviewed Papers for Journals Impact Factor: 2.2	2024
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y category	2024
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y category	2024
European journal of plant pathology Reviewed Papers for Journals Impact Factor: 1.8	2023
NUST Journal of Natural Sciences (NJNS) Edited Journal Issue / Proceeding / Book Impact Factor: Y category	2023
European Journal of Plant Pathology Reviewed Papers for Journals Impact Factor: 2.022	2022
NUST Journal of Natural Sciences (NJNS) Edited Journal Issue / Proceeding / Book Impact Factor: Y	2022
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y-category	2022
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y-category	2021
Reviewed Papers for Journals Impact Factor: Frontiers	2021
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y category	2021
NUST Journal of Natural Sciences Edited Journal Issue / Proceeding / Book Impact Factor: Y category	2021

Intellectual Property

Copyrights

Patents

Method of Production Nutrient Rich Sugar from Sugar Cane Juice using Low-Temperature Air Drying	2023
Status: Filed	
A product of recombinant expression of mutated Cotton leaf curl Kokhran virus coat protein, pET28a_CP27, in Escherichia coli	2023
Status: Filed	
Program Cell Death Based Binary Construct (pCD-NBG) for the Control of Cotton Infecting Begomovirus(es) in Nicotiana Benthamiana / Nicotiana Tabacum	2020
Status: Filed	

Industrial Designs

Trademarks