

Rehan Zafar Paracha

Associate Professor
School of Interdisciplinary Engineering & Sciences

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About

Dr. Rehan Zafar Paracha is working as Associate Professor in the School of Interdisciplinary Engineering & Sciences. Dr. Rehan Zafar Paracha has a PhD in Virology And Immunology. Dr. Rehan Zafar Paracha has published 80 research articles & conference papers having a citation count of 1013, carried out 4 projects and filed 8 intellectual property.

Qualifications

PhD in Virology And Immunology NUST, Islamabad , Pakistan	2009 - 2015
MPhil in Pharmaceutical Chemistry Gomal University , Pakistan	2006 - 2008
BS in B.Pharmacy BZU, Multan , Pakistan	2003 - 2006
F.Sc in Premedical FBISE, Islamabad , Pakistan	1996 - 1998
Matric (SSC) in Science Group FBISE, Islamabad , Pakistan	1994 - 1996

Experience

Associate Professor School of Interdisciplinary Engineering & Sciences	2024- Present
Associate Professor School of Interdisciplinary Engineering & Sciences	2022 - 2022
Associate Professor School of Interdisciplinary Engineering & Sciences	2022 - 2022
Associate Professor Research Centre for Modelling & Simulation	2021 - 2022
Associate Professor Research Centre for Modelling & Simulation	2020 - 2020
Assistant Professor Research Centre for Modelling & Simulation	2016 - 2020
Assitant Professor NUST , H-12, Islamabad	2016 - 2020
Assistant Professor Shifa Tameer-e-Millat University , H-8 Islamabad	2013 - 2015
Assistant Professor Margalla Institute of Health Sciences , Quaid-e-Azam Avenue, Gulrez-III, Rawalpindi	2010 - 2013
Senior Research Officer Faculty of Pharmacy, Gomal University, D.I Khan. , D.I.Khan	2008 - 2009
CEO Wilson's Pharmaceuticals , I-9 Islamabad	2004 - 2005
Production Pharmacist Gray's Pharmaceuticals , I-9 Islamabad	2003 - 2004

Awards

HEC Best Research Paper HEC Best Research Paper Award, 2014-2015
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Research Projects

National Projects	
Integrated Design, Fabrication and Optimization of Bioreactors for Biopharmaceutical Applications Funding Agency: NUST Amount: PKR 1,000,000.00 Status: Approved_inprocess	2024
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
Covid-19 and Bone Health: BioMechanical Modeling of Human Bones of Post Covid Syndrom origin Funding Agency: HEC Amount: PKR 7,350,000.00 Status: Completed	2022
Structural evaluation of Protein and screening of novel inhibitors for Ribosomal S6 Kinase Funding Agency: HEC Amount: PKR 500,000.00 Status: Completed	2016

International Projects

<p>In silico identification and functional annotation of universal stress protein (USP) gene family in <i>Chenopodium quinoa</i></p> <p><i>Hajira Imran Alvina Gul Rehan Zafar Paracha Rabia Amir Faiza Munir Muhammad Faraz Bhatti</i></p> <p><i>Scientific Reports</i> , Volume 15, Article Number 18264</p> <p>Impact Factor: 3.800 Quartile: 1</p> <p>DOI: https://doi.org/10.1038/s41598-025-03264-5</p>	2025
<p>Discovering promising drug candidates for Parkinson’s disease: integrating miRNA and DEG analysis with molecular dynamics and MMPBSA</p> <p><i>Bisma Ishtiaq Rehan Zafar Paracha Maryum Nisar Saima Ejaz Zamir Hussain</i></p> <p><i>Journal of Computer-Aided Molecular Design</i> , Volume:39, Issue:1, Article Number 8</p> <p>Impact Factor: 3.000 Quartile: 2 Citations: 1</p> <p>DOI: https://doi.org/10.1007/s10822-025-00586-4</p>	2025
<p>Unravelling the Impact of SARS-CoV-2 on Hemostatic and Complement Systems: A Systems Immunology Perspective</p> <p><i>Didar Murad Rehan Zafar Paracha Maryum Nisar</i></p> <p><i>Frontiers in Immunology</i> , Volume 15, Article Number 1457324</p> <p>Impact Factor: 5.700 Quartile: 1 Citations: 2</p> <p>DOI: doi: 10.3389/fimmu.2024.1457324</p>	2025
<p>Imidazolium, pyridinium and pyrazinium based ionic liquids with octyl side chains as potential antibacterial agents against multidrug resistant uropathogenic <i>E. coli</i></p> <p><i>Sidrah Hafeez Zamar rasool Awan Samia Hafeez Rehan Zafar Paracha Mudassir Iqbal Dilawar Khan Fazal Adnan</i></p> <p><i>Heliyon</i> , Volume 10, Issue 22, Article Number e39829</p> <p>Impact Factor: 3.400 Quartile: 1 Citations: 2</p> <p>DOI: 10.1016/j.heliyon.2024.e39829</p>	2024
<p>Evaluation of Inhibitory mechanism of Pennisetum glaucum (Pearl Millet) Bioactive Compounds for Rheumatoid Arthritis: An In Vitro and Computational Approach</p> <p><i>MARIA SHARIF Peter John Attya Bhatti Rehan Zafar Paracha Abid Majeed</i></p> <p><i>Frontiers in Pharmacology</i> , Volume 15, Article Number 1488790</p> <p>Impact Factor: 4.4 Quartile: 1 Citations: 3</p> <p>DOI: 10.3389/fphar.2024.1488790</p>	2024
<p>Removal of four antibiotics from the aqueous phase using Polyethylene adsorbent: Mechanistic understanding and reusability potential</p> <p><i>Rabeea Zafar Rehan Zafar Paracha Abdulwahed Fahad Alrefaei Mohammed Fahad Albeshr Muhammad Yousuf Jat Baloch Jean Kallerhoff Muhammad Arshad</i></p> <p><i>Environmental Technology and Innovation</i> , Volume 36, Article Number 103831</p> <p>Impact Factor: 6.700 Quartile: 1 Citations: 5</p> <p>DOI: https://doi.org/10.1016/j.eti.2024.103831</p>	2024
<p>Computational Insights into the Inhibitory Mechanism of Type 2 Diabetes Mellitus by Bioactive Components of <i>Oryza sativa</i> L. indica (Black rice)</p> <p><i>Kashaf Rasool Attya Bhatti Abid M. Satti Rehan Zafar Paracha Peter John</i></p> <p><i>Frontiers in Pharmacology</i> , Volume 15</p> <p>Impact Factor: 4.400 Quartile: 1 Citations: 1</p> <p>DOI: 10.3389/fphar.2024.1457383</p>	2024
<p>Enhanced accuracy with Segmentation of Colorectal Polyp using NanoNetB, and Conditional Random Field Test-Time Augmentation</p> <p><i>Muhammad Sajjad Hussain Umer Asgher Sajid Nisar Vladimir Socha Arslan Shaukat Jinhui Wang Tian Feng Rehan Zafar Paracha Muhammad Ali Khan</i></p> <p><i>Frontiers in Robotics and AI</i> , Volume 11, Article Number 1387491</p> <p>Impact Factor: 2.900 Quartile: 2</p> <p>DOI: https://doi.org/10.3389/frobt.2024.1387491</p>	2024
<p>Limitations of Protein Structure Prediction Algorithms in Therapeutic Protein Development</p> <p><i>Sarfaraz K. Niazi Zamara Mariam Rehan Zafar Paracha</i></p> <p><i>BioMedInformatics</i> , Volume 4, Issue 1, Pages 98-112</p> <p>Impact Factor: N/A Citations: 6</p> <p>DOI: https://doi.org/10.3390/biomedinformatics4010007</p>	2024

<p>Designing of fragment based inhibitors with improved activity against E. coli AmpC β-lactamase compared to the conventional antibiotics</p> <p><i>Sidrah Hafeez Rehan Zafar Paracha Fazal Adnan</i> <i>Saudi Journal of Biological Sciences</i>, Volume 31, Issue 1, Article Number 103884</p> <p>Impact Factor: 4.400 Quartile: 1 DOI: https://doi.org/10.1016/j.sjbs.2023.103884</p>	2024
<p>Interaction analysis of TRIM proteins and innate immunity mediators of common carp (<i>Cyprinus carpio</i> L.) to evaluate its affinity for ubiquitination and innate immune response</p> <p><i>Muhammad Aizaz Maryum Nisar Rehan Zafar Paracha Shijuan Shan Nida Fatima Ali Iqra Arshad Guiwen Yang</i> <i>Aquaculture</i>, Volume 575, Article Number 739706</p> <p>Impact Factor: 4.5 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1016/j.aquaculture.2023.739706</p>	2023
<p>Modelling and analysis of the complement 2 system signalling pathways: Roles of C3, 3 C5a and pro-inflammatory cytokines in 4 SARS-CoV-2 infection</p> <p><i>Didar Murad Rehan Zafar Paracha Muhammad Tariq Saeed Jamil Ahmad Ammar Mushtaq Maleeha Humayun</i> <i>PeerJ</i>, Vol:11, Article Number: e15794</p> <p>Impact Factor: 2.7 Quartile: 2 Citations: 1 DOI: 10.7717/peerj.15794</p>	2023
<p>Antibody designing against Illabc junction (Jillabc) of HCV IRES through affinity maturation; RNA-Antibody docking and interaction analysis</p> <p><i>Saima Ejaz Rehan Zafar Paracha Sadaf Ejaz Zunera Jamal</i> <i>PLoS ONE</i>, Volume 18, Issue 9, Article Number e0291213</p> <p>Impact Factor: 3.7 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1371/journal.pone.0291213</p>	2023
<p>Genome-wide analysis of heavy metal ATPases (HMAs) in Poaceae species and their potential role against copper stress in <i>Triticum aestivum</i></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> <i>Scientific Reports</i>, Volume 13, Article Number 7551</p> <p>Impact Factor: 4.996 Quartile: 2 Citations: 14 DOI: https://doi.org/10.1038/s41598-023-32023-7</p>	2023
<p>Genomic Analysis, Evolution and Characterization of E3 Ubiquitin Protein Ligase (TRIM) Gene Family in Common Carp (<i>Cyprinus carpio</i>)</p> <p><i>Muhammad Aizaz Yusra Sajid Kiani Maryum Nisar Shijuan Shan Rehan Zafar Paracha Guiwen Yang</i> <i>Genes</i>, Volume 14, Issue 3, Article Number 667</p> <p>Impact Factor: 3.5 Quartile: 2 Citations: 5 DOI: https://doi.org/10.3390/genes14030667</p>	2023
<p>Investigating Isoform Switching in RHBDF2 for its role in Human Neoplastic Growth in Breast Cancer</p> <p><i>Mehar Masood Madahiah Bint E Masood Noor Us Subah Maria Shabbir Rehan Zafar Paracha Mehak Rafiq</i> <i>PeerJ</i>, Volume 10, Article Number e14124</p> <p>Impact Factor: 2.7 Quartile: 2 Citations: 2 DOI: 10.7717/peerj.14124</p>	2022
<p>Genome mining, antimicrobial and plant growth-promoting potentials of halotolerant <i>Bacillus paralicheniformis</i> ES-1 isolated from salt mine</p> <p><i>Sajid Iqbal Muhammad Qasim Hazir Rahman Naeem Khan Rehan Zafar Paracha Muhammad Faraz Bhatti Aneela Javed Hussnain Ahmed Janjua</i> <i>Molecular Genetics and Genomics</i>, Pages 1-15</p> <p>Impact Factor: 2.980 Quartile: 3 Citations: 21 DOI: https://doi.org/10.1007/s00438-022-01964-5</p>	2022
<p>System Level Modeling and Analysis of TNF-α mediated Sphingolipid Signaling Pathway in Neurological Disorders for the Prediction of Therapeutic Targets</p> <p><i>Sanam Banarus Rehan Zafar Paracha Maryum Nisar Jamil Ahmad Muhammad Tariq Saeed Zartasha Mustansar Malik N Shuja Ayesha Arif</i> <i>Frontiers in Physiology</i>, Volume 13</p> <p>Impact Factor: 4.755 Quartile: 1 Citations: 9 DOI: doi: 10.3389/fphys.2022.872421</p>	2022
<p>2-Mercaptobenzimidazole clubbed hydrazone for Alzheimer's therapy: In vitro, kinetic, in silico, and in vivo potentials</p> <p><i>Farida Begum Najeeb Ur Rehman Ajmal Khan Sajid Iqbal Rehan Zafar Paracha Jalal Uddin Ahmed Al-Harrasi Muhammad Arif Lodhi</i></p>	2022

<p><i>Frontiers in Pharmacology</i> , Volume 13, Article Number 946134</p> <p>Impact Factor: 5.988 Quartile: 1 Citations: 5</p> <p>DOI: https://doi.org/10.3389/fphar.2022.946134</p>	
<p>Docking and Molecular Dynamics Study to Identify Novel Phytobiologics from <i>Dracaena trifasciata</i> against Metabolic Reprogramming in Rheumatoid Arthritis</p> <p><i>Attya Bhatti Ahanzay Ahmed Peter John Rehan Zafar Paracha Monica Guma</i></p> <p><i>Life</i> , Volume 12, Issue 8, Article Number 1148</p> <p>Impact Factor: 3.251 Quartile: 2 Citations: 8</p> <p>DOI: 10.3390/life12081148</p>	2022
<p>Photoperiod and water-deficient conditions differentially regulate structural flavonoid biosynthetic genes in peanuts</p> <p><i>Maryam Khan Saman Taufiq Irum Nauman Norina Noor Tooba Iqbal Hina Ali Rehan Zafar Paracha Faiza Munir Alvina Gul Rabia Amir</i></p> <p><i>Journal of Plant Interactions</i> , Volume 17(1), Pages 620-631</p> <p>Impact Factor: 4.208 Quartile: 1 Citations: 1</p> <p>DOI: https://doi.org/10.1080/17429145.2022.2076940</p>	2022
<p>Cytotoxic Evaluation, Molecular Docking, and 2D-QSAR Studies of Dihydropyrimidinone Derivatives as Potential Anticancer Agents</p> <p><i>Reem Altaf Humaira Nadeem Umair Ilyas Jamshed Iqbal Rehan Zafar Paracha Hajra Zafar Ana Cláudia Paiva-Santos Muhammad Sulaiman Faisal Raza</i></p> <p><i>Journal of Oncology</i> , Volume 2022, Article ID 7715689, 25 pages</p> <p>Impact Factor: 4.501 Quartile: 2 Citations: 17</p> <p>DOI: https://doi.org/10.1155/2022/7715689</p>	2022
<p>Synthesis, structure and acetylcholinesterase inhibition activity of new diarylpyrazoles</p> <p><i>Mehwash Zia Shahid Hameed Humaira Nadeem Aamir Ali Kharlc Necmi Dege Rehan Zafar Paracha Iqra Arshad Muhammad Moazzam Naseer</i></p> <p><i>Bioorganic Chemistry</i> , Volume 121, Article Number 105658</p> <p>Impact Factor: 5.307 Quartile: 1 Citations: 3</p> <p>DOI: https://doi.org/10.1016/j.bioorg.2022.105658</p>	2022
<p>Investigating effect of mutation on structure and function of G6PD enzyme: a comparative molecular dynamics simulation study</p> <p><i>Fouzia Perveen Malik Jamshed Anwar Rehan Zafar Paracha Sadaf Rani</i></p> <p><i>PeerJ</i> , Volume 10, Article Number e12984</p> <p>Impact Factor: 2.7 Quartile: 2 Citations: 7</p> <p>DOI: https://doi.org/10.7717/peerj.12984</p>	2022
<p>Interaction Analysis of Adenovirus L5 Protein With Pancreatic Cancer Cell Surface Receptor to Analyze Its Affinity for Oncolytic Virus Therapy</p> <p><i>Maryam Nisar Rehan Zafar Paracha Alvina Gul Iqra Arshad Saima Ejaz Deedar Murad Zartasha Mustansar Shahzeb Khan</i></p> <p><i>Frontiers in Oncology</i> , Volume 12, Article Number 832277</p> <p>Impact Factor: 5.738 Quartile: 2 Citations: 5</p> <p>DOI: 10.3389/fonc.2022.832277</p>	2022
<p>Computational Assessment of Botrytis cinerea Lipase for Biofuel Production</p> <p><i>Tehsin Fatma Zeeshan Zafar Sidra Fatima Rehan Zafar Paracha Fazal Adnan Zeshan Nasar Virk Muhammad Faraz Bhatti</i></p> <p><i>Catalysts</i> , Volume 11(11), Article Number 1319</p> <p>Impact Factor: 4.146 Quartile: 2 Citations: 5</p> <p>DOI: https://doi.org/10.3390/catal11111319</p>	2021
<p>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.</p> <p><i>Nida Fatima Ali Rehan Zafar Paracha Muhammad Tahir</i></p> <p><i>PeerJ</i> , Volume 9, Article Number e12018</p> <p>Impact Factor: 3.061 Quartile: 2 Citations: 1</p> <p>DOI: https://doi.org/10.7717/peerj.12018</p>	2021
<p>Long non-coding RNAs and their targets as potential biomarkers in breast cancer</p> <p><i>Maryam Khalid Rehan Zafar Paracha Maryum Nisar Sumaira Malik Dr Zamir Hussain Salma Tariq Iqra Arshad Amnah Siddiq, Jamil Ahmad Amjad Ali</i></p> <p><i>IET Systems Biology</i> , Volume 15, Issue 5, Pages 137-147</p> <p>Impact Factor: 1.615 Quartile: 4 Citations: 5</p> <p>DOI: https://doi.org/10.1049/syb2.12020</p>	2021

- Genome-wide analysis, identification, evolution and genomic organization of dehydration responsive element-binding (DREB) gene family in *Solanum tuberosum*** 2021
Nida Mushtaq Faiza Munir Alvina Gul Rabia Amir Rehan Zafar Paracha
PeerJ, Volume 9, Article Number e11647
Impact Factor: 3.061 | **Quartile:** 2 | **Citations:** 26
DOI: 10.7717/peerj.11647
- Integrated analysis of microarray and RNA-Seq data for the identification of Hub genes and networks involved in the pancreatic cancer** 2021
Rumeza Hanif Rehan Zafar Paracha Mehak Rafiq Zamir Hussain Maryum Nisar Iqra Arshad Sidra Adil Sabaoon Zeb
Frontiers in Genetics, Volume 12, Article Number 663787
Impact Factor: 4.599 | **Quartile:** 2 | **Citations:** 18
DOI: doi.org/10.3389/fgene.2021.663787
- A Computational Systems Analyses to Identify Biomarkers and Mechanistic Link in Psoriasis and Cutaneous Squamous Cell Carcinoma** 2021
Sidra Adil Rehan Zafar Paracha Zamir Hussain Salma Tariq Maryum Nisar Sadaf Ijaz Afreenish Aamir Amnah Siddiq
Frontiers in Immunology, Volume 12, Article Number 662528
Impact Factor: 7.561 | **Quartile:** 1 | **Citations:** 10
DOI: https://doi.org/10.3389/fimmu.2021.662528
- Therapeutic Potential of Novel Mastoparan-Chitosan Nanoconstructs Against Clinical MDR *Acinetobacter baumannii*: In silico, in vitro and in vivo Studies** 2021
Rehan Zafar Paracha Afreenish Hassan Aamer Ikram Abida Raza Sidra Saeed Zumara Younas Muhammad Tahir Khadim
International Journal of Nanomedicine, Volume 16, Pages 3755-3773
Impact Factor: 6.400 | **Quartile:** 1 | **Citations:** 24
DOI: https://doi.org/10.2147/IJN.S296717
- Evaluating the cleavage efficacy of CRISPR-Cas9 sgRNAs targeting ineffective regions of *Arabidopsis thaliana* genome** 2021
Afsheen Malik Alvina Gul Faiza Munir Rabia Amir Hadi Alipour Mustafeez Mujtaba Babar Syeda Marriam Bakhtiar Rehan Zafar Paracha Zoya Khalid Muhammad Qasim Hayat
PeerJ, Volume 9, Article Number e11409
Impact Factor: 3.061 | **Quartile:** 2 | **Citations:** 8
DOI: https://doi.org/10.7717/peerj.11409
- A Multi-Method and Structure-Based In Silico Vaccine Designing Against *Helicobacter pylori* Employing Immuno-Informatics Approach** 2021
Amjad Ali Rehan Zafar Paracha Anam Naz Tahreem Zaheer Hamza A Dar Faryal Mehwish Awan Ayesha Obaid Shifa Tariq Ashraf Arif Malik
Current Proteomics, Volume 18, Issue 2, Pages 237-247
Impact Factor: 0.642 | **Quartile:** 4
DOI: https://doi.org/10.2174/1570164617999200414120231
- Classification and Computational Analysis of *Arabidopsis thaliana* Sperm Cell-Specific F-Box Protein Gene 3p.AtFBP113** 2020
Afsheen Malik Alvina Gul Rabia Amir Faiza Munir Mustafeez Mujtaba Babar Syeda Marriam Bakhtiar Muhammad Qasim Hayat Rehan Zafar Paracha Zoya Khalid Hadi Alipour
Frontiers in Genetics, Volume 11, Article Number 609668
Impact Factor: 4.599 | **Quartile:** 2 | **Citations:** 2
DOI: doi: 10.3389/fgene.2020.609668
- New Insight Into Catalytic Mechanism of Glucose-6-Phosphate Dehydrogenase Enzyme: A DFT Study** 2020
Sadaf Rani Fouzia Perveen Jerry P Jasinski Rehan Zafar Paracha Haris Bin Tanveer Farooq Ahmad Kiani Rodrigo Albuquerque
Journal of Computational Biophysics and Chemistry, Pages 1-11
Impact Factor: N/A | **Citations:** 2
DOI: 10.1142/S2737416521400019
- Synthesis, crystal structure and DNA binding interactions of ethyl 2-(2-acetamidothiazol-4-yl) acetate: Theoretical and experimental investigations** 2019
Rehan Zafar Paracha Zafar Iqbal Zaman Ashraf Mujahid Abas Erum Jabeen Muhammad Nawaz Tahir Maryum Nisar Safeer Ahmad
Journal of Molecular Structure, Volume: 1198, Article Number: UNSP 126903
Impact Factor: 2.463 | **Quartile:** 3 | **Citations:** 2
DOI: https://doi.org/10.1016/j.molstruc.2019.126903

Designing, synthesis and characterization of 2-aminothiazole-4-carboxylate Schiff bases; antimicrobial evaluation against multidrug resistant strains and molecular docking <i>Saima Ejaz Humaira Nadeem Rehan Zafar Paracha Sadia Sarwar Sadaf Ejaz</i> <i>BMC Chemistry</i> , Volume: 13, Issue: 1, Article Number: UNSP 115 Impact Factor: 0 DOI: https://doi.org/10.1186/s13065-019-0631-6	2019
The Route to 'Chemobrain' - Computational probing of neuronal LTP pathway <i>Ammad Fahim Muhammad Faraz Bhatti Nasar um Minullah Virk Rehan Zafar Paracha Zaira Rehman Amjad Ali Amir Rashid</i> <i>Nature Scientific Reports</i> , Volume 9, Article Number 9630 Impact Factor: 4.011 Quartile: 1 Citations: 7 DOI: 10.1038/s41598-019-45883-9	2019
A systematic simulation-based meta-analytical framework for prediction of physiological biomarkers in alopecia <i>Rehan Zafar Paracha Syed Aun Muhammad Nighat Fatima Amjad Ali Jake Y. Chen</i> <i>Journal of Biological Research-Thessaloniki</i> , Volume 26, Article Number 2 Impact Factor: 2.364 Quartile: 2 Citations: 13 DOI: 10.1186/s40709-019-0094-x	2019
MicroRNAs and their target mRNAs as Potential Biomarkers among Smokers and Non-Smokers with Lung Adenocarcinoma <i>Zamir Hussain Sumaria Malik Rehan Zafar Paracha Maryam Khalid Maryum Nisar Amnah Siddiqa Raheel Nawaz Amjad Ali Jamil Ahmad</i> <i>IET Systems Biology</i> , Volume 13, Issue 2, Pages 69-76 Impact Factor: 1.392 Quartile: 4 Citations: 2 DOI: 10.1049/iet-syb.2018.5040	2019
Parameter estimation of qualitative biological regulatory networks on high performance computing hardware <i>Muhammad Tariq Saeed Jamil Ahmad Jan Baumbach Josch Pauling Aamir Shaf Rehan Zafar Paracha Asad Hayat Amjad Ali</i> <i>BMC Systems Biology</i> , Volume 12, Article Number 146 Impact Factor: 2.048 Quartile: 2 Citations: 6 DOI: 10.1186/s12918-018-0670-y	2018
Exploring NS3/4A, NS5A and NS5B proteins to design conserved subunit multi-epitope vaccine against HCV utilizing immunoinformatics approaches <i>Aqsa Ikram Tahreem Zaheer Faryal Mehwish Awan Ayesha Obaid Anam Naz Rumeza Hanif Rehan Zafar Paracha Abdul Khaliq Naveed Hussnain Ahmed Janjua</i> <i>Scientific Reports</i> , Volume 8, Article Number 16107 Impact Factor: 4.011 Quartile: 1 Citations: 75 DOI: 10.1038/s41598-018-34254-5	2018
Structural insights and characterization of human Npas4 protein <i>Ammad Fahim Zaira Rehman Muhammad Faraz Bhatti Rehan Zafar Paracha Amjad Ali Nasar Virk Amir Rashid</i> <i>PeerJ</i> , NULL Impact Factor: 2.358 Quartile: 2 Citations: 5 DOI: 10.7717/peerj.4978	2018
Synthesis, Anti-inflammatory, Antimicrobial Potential and Molecular Docking Studies of 4,5-Disubstituted-1,2,4-Triazole Thioacetate Derivatives <i>Muhammad Nouman Arif Humaira Nadeem Arifullah Khan Imran Khanzada Fawad Ali Rehan Zafar Paracha</i> <i>Letters in Drug Design & Discovery</i> , Volume 15, Issue 0, Pages 1-11, Year 2018 Impact Factor: 0.953 Quartile: 4 Citations: 9 DOI: 10.2174/1570180815666180810122226	2018
Impact of orientation of carbohydrate binding modules family 22 and 6 on the catalytic activity of Thermotoga maritima xylanase XynB <i>Razia Tajwar Saher Shahid Rehan Zafar Paracha Muhammad Waheed Akhtar</i> <i>Enzyme and Microbial Technology</i> , Volume 106, Pages 75-82 Impact Factor: 2.932 Quartile: 2 Citations: 22 DOI: 10.1016/j.enzmictec.2017.07.004	2017
Synthesis, characterization, anti-ulcer action and molecular docking evaluation of novel benzimidazole-pyrazole hybrids <i>Abida Noor Neelum Gul Qazi Humaira Nadeem Arif?ullah Khan Rehan Zafar Paracha Fawad Ali Adil Saeed</i>	2017

Structural analysis and insight into Zika virus NS5 mediated interferon inhibition

2017

Hamza Arshad Dar Tahreem Zaheer Rehan Zafar Paracha Amjad Ali

Infection, Genetics and Evolution, Volume: 51 Pages: 143-152

Impact Factor: 2.545 | Quartile: 3 | Citations: 16

DOI: 10.1016/j.meegid.2017.03.027

Formal modeling of mTOR Associated biological regulatory network reveals novel therapeutic strategy for the treatment of cancer

2017

Zurah Bibi Jamil Ahmad Amnah Siddiqah Rehan Zafar Paracha Tariq Saeed Amjad Ali Hussnain Ahmed Janjua Shakir Ullah Emna Ben Abdallah Olivier Roux

Frontiers in Physiology, Volume: 8, Article Number 416

Impact Factor: 3.394 | Quartile: 1 | Citations: 5

DOI: 10.3389/fphys.2017.00416

Identification of drug resistance and immune-driven variations in hepatitis C virus (HCV) NS3/4A, NS5A and NS5B regions reveals a new approach toward personalized medicine

2017

Aqsa Ikram Ayesha Obaid Faryal Mehwish Awan Rumeza Hanif Anam Naz Rehan Zafar Paracha Amjad Ali Hussnain Ahmed Janjua

Antiviral Research, Volume: 137, Pages: 112-124, Published: JAN 2017

Impact Factor: 4.307 | Quartile: 1 | Citations: 7

DOI: 10.1016/j.antiviral.2016.10.013

Formal modeling and analysis of the hexosamine biosynthetic pathway: role of O-linked N-acetylglucosamine transferase in oncogenesis and cancer progression

2016

Rehan Zafar Paracha Muhammad Tariq Saeed Jamil Ahmed Shahzina Kanwal Andreana N. Holowatyj Iftikhar A. Sheikh Muhammad Aamir Shafi Amnah

Siddiqah Zurah Bibi Mukaram Khan Amjad Ali

PeerJ, Volume 4, Article Number e2348

Impact Factor: 2.177 | Quartile: 2 | Citations: 15

DOI: 10.7717/peerj.2348

Fusion molecules of heat shock protein HSPX with other antigens of mycobacterium tuberculosis show high potential in serodiagnosis of tuberculosis

2016

Rehan Zafar Paracha Ruqyya Khalid Sana Khurshid Imran H. Khan Madeeha Afzal Muhammad Waheed Akhtar

PLOS ONE, Volume 11, Issue 9, Article Number e0163349

Impact Factor: 2.806 | Quartile: 1 | Citations: 16

DOI: doi:10.1371/journal.pone.0163349

Pangenome and immuno-proteomics analysis of Acinetobacter baumannii strains revealed the core peptide vaccine targets

2016

Afreenish Hassan Anam Naz Ayesha Obaid Rehan Zafar Paracha Kanwal Naz Faryal Mehwish Awan Syed Aun Muhammad Hussnain Ahmed Janjua Jamil

Ahmad Amjad Ali

BMC Genomics, Volume 17, Article Number 732

Impact Factor: 3.729 | Quartile: 1 | Citations: 97

DOI: 10.1186/s12864-016-2951-4

Characterization of evolutionary changes in hemagglutinin of influenza H1N1 virus: a computational analysis

2016

Rehan Zafar Paracha Zaira Rehman Uzma Amir Umer H. K. Niazi Ammad Fahim

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Impact Factor: 0 | Citations: 1

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2016

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Impact Factor: 2.841 | Quartile: 2 | Citations: 38

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Structural modeling and analysis of dengue-mediated inhibition of interferon signaling pathway <i>Babar Aslam Jamil Ahmed Amjad Ali Rehan Zafar Paracha Samar Hayat Khan Tareen Shah Khushro Taseer Ahmad S.A. Muhammad Umar Niazi V. Azevedo</i> <i>Genetics and Molecular Research</i> , Volume 14, Issue 2, Pages 4215-4237 Impact Factor: 0.764 Quartile: 4 Citations: 8 DOI: DOI:10.4238/2015.April.28.4	2015
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Challenges and Opportunities Associated with Technology-Driven Biomechanical Simulations 2022

Zartasha Mustansar Haider Ali Lee Margetts Saad Ahmad Khan Salma Sherbaz Rehan Zafar Paracha
The 2022 World Congress in Computer Science, Computer Engineering, & Applied Computing (CSCE'22), res.country(233,)
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Investigating the Mechanical Strength of an Endodontically Treated Human Canine using Image-based Finite Element Analysis 2021

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<p>Innovations in healthcare product development</p> <p><i>Mohammad Mohsin Memon Zartasha Mustansar Rehan Zafar Paracha Maheera Amjad Rida Ayub Chauhdary Jamil Ahmad Umer Asgher</i></p> <p>In: <i>Smart VR/AR/MR Systems for Professionals</i> , 1st Edition, Chapter 3, Pages 13</p> <p>Citations: 1</p> <p>DOI: 10.1201/9781003306078-4</p>	2024
<p>Systems-Level Understanding of Single-Cell Omics</p> <p><i>Anam Naz Ayesha Obaid Aqsa Ikram Faryal Mehwish Awan Maryum Nisar Rehan Zafar Paracha Amjad Ali</i></p> <p>In: <i>Book on Single-Cell Omics</i>, Chapter 20, Volume 1 (Technological Advances), Pages 433-456</p> <p>Citations: N/A</p> <p>DOI: https://doi.org/10.1016/B978-0-12-814919-5.00020-8</p>	2019
<p>Identification of Key Genes and Pathways Involved in Compensatory Pancreatic Beta Cell Hyperplasia During Insulin Resistance.</p> <p><i>Amnah Siddiqi Jamil Ahmad Zurah Bibi Amjad Ali Rehan Zafar Paracha</i></p> <p>In: <i>Advances in Computational Science and Computing</i>, pp 420-427</p> <p>Citations: N/A</p> <p>DOI: 10.1007/978-3-030-02116-0_49</p>	2018
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Editorial Activities

Viruses	2023
Reviewed Papers for Journals	
Impact Factor: 4.7	
Immunity, Inflammation and Disease	2022
Reviewed Papers for Journals	
Impact Factor: 3.2	
Oncology Letters	2021
Reviewed Papers for Journals	
Impact Factor: 3.111	
Frontiers in Immunology	2021
Reviewed Papers for Journals	
Impact Factor: 8.786	
	2021
Reviewed Papers for Journals	
Impact Factor: 1.76	
	2021
Reviewed Papers for Journals	
Impact Factor: 4.418	
	2020
Reviewed Papers for Journals	
Impact Factor: 1.85	
	2019
Reviewed Papers for Journals	
	2019
Reviewed Papers for Journals	
Impact Factor: 0.6	
	2018
Reviewed Papers for Journals	
	2018
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GUI TAR: A GUI for Transcriptomics Analysis of RNA-Seq data. Status: Granted	2022
Pipeline for automated docking and analysis by using Openeye. Status: Granted	2022
MetaMIC: A platform for Meta-Analysis of Microarrays Status: Granted	2022
GUI TAR: A GUI for Transcriptomics Analysis of RNA-Seq data. Status: Filed	2021
Pipeline for automated docking and analysis by using Openeye. Status: Filed	2021
Web Scraping, Data Analysis and Dashboard Generation for COVID-19 in R Status: Filed	2021
SEQClick: Cloud based SEQuencing ANalysis at a Click Status: Filed	2021
MetaMIC: A platform for Meta-Analysis of Microarrays Status: Filed	2021

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