

Mehak Rafiq

Assistant Professor

School of Interdisciplinary Engineering & Sciences

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About

Dr. Mehak Rafiq is working as Assistant Professor in the School of Interdisciplinary Engineering & Sciences. Dr. Mehak Rafiq has a PhD in Computational Biology. Dr. Mehak Rafiq has published 14 research articles & conference papers having a citation count of 199, carried out 6 projects and filed 0 intellectual property.

Qualifications

PhD in Computational Biology University of Greenwich , United Kingdom	2012 - 2015
B.Sc (Hon) in Bioscience University of Greenwich , United Kingdom	2008 - 2011

Experience

Assistant Professor School of Interdisciplinary Engineering & Sciences	2024- Present
Assistant Professor School of Interdisciplinary Engineering & Sciences	2022 - 2022
Assistant Professor Research Centre for Modelling & Simulation	2020 - 2017
Assistant Professor Research Centre for Modelling & Simulation	2018 - 2022
Assistant Professor Atta-Ur-Rahman School of Applied Biosciences	2017 - 2018
Assistant Professor Atta-Ur-Rahman School of Applied Biosciences	2016 - 2020
Assistant Professor Research Centre for Modelling & Simulation	2015 - 2016
PostDoctoral Fellow University of Greenwich , London, United Kingdom	2012 - 2012

Awards

NRPU-HEC Understanding the role of iRhoms in EGFR signalling pathway and its role in Breast and Colorectal Cancer Amount: 1.5 Million PKR	2018
DrTech Pvt/ Ltd Developing SMART – integrated waste labour management system Amount: 1.2 Million PKR	2018
SRGP-HEC Structural Controls of urokinase-like receptors & Rhomboids; and variations introduced by boronic acid binding Amount: 0.3 Million PKR	2016

Research Projects

National Projects

NUST Biomedical Data Bank (NBDB); A Roadmap to Personalized Medicine (Phase-I) Funding Agency: NUST Amount: PKR 1,000,000.00 Status: Completed	2023
In-depth analysis of predication & forecasting of sepsis in ICU patients using Deep Learning Funding Agency: XpertFlow Amount: PKR 610,000.00 Status: Completed	2021
Structural Controls of Urokinase-Like Receptor & Rhomboids: and variations introduced by Boronic Acid Binding Funding Agency: HEC Amount: PKR 395,000.00 Status: Completed	2016
Understanding the Role of iRhoms in EGFR Signalling Pathway and its Role in Breast and Colorectal Cancer Funding Agency: HEC Amount: PKR 6,200,000.00 Status: Completed	2018
Down regulation of Protein kinase C Epsilon, a possible drug-able candidate in human breast cancer management. Funding Agency: HEC Amount: PKR 3,108,577.00 Status: Completed	2018

International Projects

Industry Projects

National Projects

BDM Module Client: Rapidev Amount: PKR 1,440,000.00 Status: Approved_inprocess	2023
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International Projects

Research Articles

Enhancing Energy Conservation Behaviors Through Audio, Visual, and Social Cues in Virtual Reality <i>Maria Maqbool Amna Khan Mehak Rafiq Shahzad Rasool</i> <i>Visual Computer</i> , Pages 1-17 Impact Factor: 3.000 Quartile: 2 DOI: https://doi.org/10.1007/s00371-025-04003-7	2025
Prioritizing gut microbial SNPs linked to immunotherapy outcomes in NSCLC patients by integrative bioinformatics analysis <i>Muhammad Faheem Raziq Nadeem Khan Haseeb Manzoor Shahzad Rasool Mehak Rafiq Masood Ur Rehman Kayani Lisu Huang Hafiz Muhammad Adnan Tariq</i> <i>Journal of Translational Medicine</i> , Volume:23, Issue:1, Article Number: 343 Impact Factor: 6.100 Quartile: 1 DOI: https://doi.org/10.1186/s12967-025-06370-0	2025
Integrated pan-cancer analysis revealed therapeutic targets in the ABC transporter protein family <i>Madahiah Bint E Masood Muhammad Inam Rafique Ayesha Inam Tarar Ariba Abbasi Mehak Rafiq Uzma Habib Iqra Shafique</i> <i>PLoS One</i> , Volume 20(5), Article Number e0308585 Impact Factor: 2.900 Quartile: 1	2025

Computational evaluation of efflux pump homologues and lignans as potent inhibitors against multidrug-resistant <i>Salmonella typhi</i>	2024
<i>Iqra Shafique Mehak Rafiq Nosheen Fatima Rana Fatemah Almalki Alya Aljuad Sulaiman Mohammed Alnasser Amenah S. Alotaibi Madahiah Bint E. Masood Tehreem Tanveer Farid Menaa</i> <i>Plos One</i> , Volume 19(6), Article Number e0303285 Impact Factor: 2.900 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1371/journal.pone.0303285	
Cross talk of tumor protein D52 (TPD52) with KLF9, PKCϵ, and MicroRNA 223 in ovarian cancer	2023
<i>Khushbukhat Khan Sameen Zafar Yasmin Badshah Naeem Mahmood Ashraf Mehak Rafiq Lubna Danish Maria Shabbir Janeen H. Trembley Tayyaba Afsar Ali Almajwal Suhail Razak</i> <i>Journal of Ovarian Research</i>, Volume 16, Issue 1, Article Number: 202 Impact Factor: 4.0 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1186/s13048-023-01292-1	
Investigating Isoform Switching in RHBDF2 for its role in Human Neoplastic Growth in Breast Cancer	2022
<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 Impact Factor: 2.7 Quartile: 2 Citations: 2 DOI: 10.7717/peerj.14124	
Integrated analysis of microarray and RNA-Seq data for the identification of Hub genes and networks involved in the pancreatic cancer	2021
<i>Rumeza Hanif Rehan Zafar Paracha Mehak Rafiq Zamir Hussain Maryum Nisar Iqra Arshad Sidra Adil Sabaoon Zeb</i> <i>Frontiers in Genetics</i>, Volume 12, Article Number 663787 Impact Factor: 4.599 Quartile: 2 Citations: 18 DOI: doi.org/10.3389/fgene.2021.663787	
Evaluation of pro-apoptotic potential of taxifolin against liver cancer	2021
<i>Sania Safdar Butt Khushbukhat Khan Yasmin Badshah Mehak Rafiq Maria Shabbir</i> <i>PeerJ</i> , Volume 9, Article Number e11276 Impact Factor: 3.061 Quartile: 2 Citations: 31 DOI: DOI 10.7717/peerj.11276	
Unravelling Structure, Localization, and Genetic Crosstalk of KLF3 in Human Breast Cancer	2020
<i>Yasmin Badshah Maria Shabbir Mehak Rafiq Khushbukhat Khan Sadia Safi Asma Abbas Erum Dilshad Kainat Zahra</i> <i>BioMed Research International</i> , Volume 2020, Article ID 1354381, 15 pages Impact Factor: 3.411 Quartile: 2 Citations: 14 DOI: https://doi.org/10.1155/2020/1354381	
Molecular Docking Using Chimera and Autodock Vina Software for Nonbioinformaticians	2020
<i>Sania Safdar Butt Yasmin Badshah Maria Shabbir Mehak Rafiq</i> <i>JMIR Bioinformatics and Biotechnology</i>, Volume 1(1), Article Number e14232 Impact Factor: - Citations: 130 DOI: doi:10.2196/14232	
Computational Characterization of the Binding Energy and Interactions between CB1 Receptor and Its Classical Agonist and Negative Allosteric Modulators (NAMs)	2019
<i>Saba Shabber Uzma Habib Mehak Rafiq</i> <i>Acta Scientific Pharmaceutical Sciences</i> , Volume 3, Issue 9, Pages 3-11 Impact Factor: N/A DOI: https://www.actascientific.com/ASPS-3-9.php#popup1	
Bridging the gap by discerning SNPs in linkage disequilibrium and their role in breast cancer	2018
<i>Sundus Naila Maqbool Sadia Haleema Nazir Rumeza Hanif Aneela Javed Mehak Rafiq</i> <i>Gene</i> , Volume 679, Pages 44-56 Impact Factor: 2.638 Quartile: 2 DOI: 10.1016/j.gene.2018.06.102.	

Conference Proceedings

A Machine Learning-Based Comparative Study for the Classification of Septic Shock Using Microarray Gene	2019
<i>Arslan Ali Ayesha Hanif Arsalan Tahir Hafiz Umar Iftikhar Huma Shehwana Mehak Rafiq</i>	
<i>International Conference on Frontiers of Information Technology (FIT) , res.country(177,)</i>	
Citations: N/A	
DOI: DOI: 10.1109/FIT47737.2019.00022	
The Dictyostelium rhomboid proteases and mitochondrial disease	2019
<i>Mehak Rafiq Elinor Thompson Elinor Thompson</i>	
<i>The Annual Conference , res.country(231,)</i>	
Citations: N/A	
DOI: doi.org/10.1099/acmi.ac2019.po0269	

Editorial Activities

Scientific Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.6	
BMC Medical Genomics	2023
Reviewed Papers for Journals	
Impact Factor: 2.7	
Scientific Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.6	
Scientific Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.6	
Functional & Integrative Genomics	2023
Reviewed Papers for Journals	
Impact Factor: 2.6	
FEBS Open Bio	2023
Reviewed Papers for Journals	
Impact Factor: 2.792	
Frontiers in Pharmacology	2022
Reviewed Papers for Journals	
Impact Factor: 5.988	
BMC Genomic Data	2022
Reviewed Papers for Journals	
Impact Factor: Nil	
Mathematical Problems in Engineering	2022
Reviewed Papers for Journals	
Impact Factor: 1.305	
PeerJ	2022
Reviewed Papers for Journals	
Impact Factor: 3.061	
	2020
Reviewed Papers for Journals	
Impact Factor: 4.38	