

Member Publications

2021-2022

1. Afzal, N., W. J. Lederer, **M. S. Jafri**, and C. A. Mannella. 2021. Effect of Crista Morphology on Mitochondrial ATP Output: A Computational Study. *Current Research in Physiology*. 4:163-176.
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3. **Awan M**, Akakpo KE, Shukla M, Graboyes EM, Pipkorn P, Puram SV, Zenga J. The Substantial Omission of Indicated Postoperative Radiotherapy in Patients With Advanced-Stage Oral Cancer in the US-A Call to Action. *JAMA Otolaryngol Head Neck Surg*. 2021 Oct 1;147(10):907-909. doi: 10.1001/jamaoto.2021.1744. PMID: 34383035
4. **Awan MJ**, Gittleman H, Barnholtz-Sloan J, Machtay M, Nguyen-Tan PF, Rosenthal DI, Schultz C, Huth BJ, Thorstad WL, Frank SJ, Kim H, Foote RL, Lango MN, Shenouda G, Suntharalingam M, Harris J, Zhang Q, Le QT, Yao M; NRG Oncology Group. Risk groups of laryngeal cancer treated with chemoradiation according to nomogram scores - A pooled analysis of RTOG 0129 and 0522. *Oral Oncol*. 2021 May;116:105241. doi: 10.1016/j.oraloncology.2021.105241. Epub 2021 Feb 25. PMID: 33640577
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7. Hollingsworth, L.R., David, L., Li, Y., Griswold, A.R., **Sharif, H.**, Fontana, P., Fu, T.M., Ruan, J., Bachovchin, D.A., & Wu, H. Mechanism of filament formation in UPA-promoted CARD8 and NLRP1 inflammasomes *Nature Communications* (2021) 12: 189.
8. Hollingsworth, L.R.* , **Sharif, H.*** , Griswold, A.R.* , Fontana, P., Mintseris, J., Dagbay, K.B. Paulo, J.A., Gygi, S.P., Bachovchin, D.A. and Wu, H. DPP9 directly sequesters the NLRP1 C-terminus to repress inflammasome activation. *Nature* (2021) 592 (7856): 778-783.

9. Khaliq A, Ravindran R, Afzal S, Jena PK, Akhtar MW, Ambreen A, ..., **Khan, I. H.** (2021) Gut microbiome dysbiosis and correlation with blood biomarkers in active-tuberculosis in endemic setting. PLoS ONE 16(1): e0245534.
10. **Khan M**, Völkers M, Wende AR. Editorial: Metabolic Regulation of Cardiac and Vascular Cell Function: Physiological and Pathophysiological Implications. Front Physiol. 2022;13:849869. doi: 10.3389/fphys.2022.849869. eCollection 2022.
11. Kurian J, Bohl V, Behanan M, Mohsin S, **Khan M.** Transcriptional Profiling of Cardiac Cells Links Age-Dependent Changes in Acetyl-CoA Signaling to Chromatin Modifications. Int J Mol Sci. 2021 Jun 29;22(13). doi: 10.3390/ijms22136987
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13. McCoy, M. D., J. Hamre, D. K. Klimov, and **M. S. Jafri.** 2021. Predicting genetic variation severity using machine learning to interpret molecular simulations. Biophys. J. 120(2):189-204.
14. McIlwain, D. R., Chen, H., **Rahil, Z.**, Bidoki, N. H., Jiang, S., Bjornson, Z., ... & Nolan, G. P. (2021). Human influenza virus challenge identifies cellular correlates of protection for oral vaccination. Cell Host & Microbe, 29(12), 1828-1837.
15. Mo X, Kazmi HR, Preston-Alp S, Zhou B, **Zaidi MR.** Interferon-gamma induces melanogenesis via post-translational regulation of tyrosinase. Pigment Cell Melanoma Res. 2022 May;35(3):342-355. doi: 10.1111/pcmr.13036. Epub 2022 Mar 20. PMID: 35266648
16. Munger, E. M., J. W. Hickey, A. K. Dey, **M. S. Jafri**, J. M Kinser, N. N. Mehta. 2021. Application of Machine Learning in Understanding Atherosclerosis: Emerging Insights. APL Bioeng. 5(1):011505. **Editor's Pick**
17. Oh S, **Awan MJ**, Monroe JI, Liang Y, Wegner RE, Karlovits S, Machtay M, Lo SS, Sloan A, Sohn JW. A volume-independent conformity index for stereotactic radiosurgery. Med Phys. 2022 May;49(5):2931-2937. doi: 10.1002/mp.15619. Epub 2022 Apr 12. PMID: 35315939
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22. S. Kang, S. Nasher, and **A. Masud**, Blood-Artery Interaction in Calcified Aortas and Abdominal Aortic Aneurysms. *Extreme Mechanics Letters*, Volume 54, July 2022, 101684 <https://doi.org/10.1016/j.eml.2022.101684>.
23. **Sharif, H.***, Hollingsworth, L.R.* , Griswold, A.R.* , Hsiao, J.C., Wang, Q., Bachovchin, D.A. and Wu, H. Dipeptidyl peptidase 9 sets a threshold for CARD8 inflammasome formation by sequestering its active C-terminal fragment. *Immunity (2021)* 54 (7) 13: 1392-1404.
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28. **Zaidi MR**, Liebermann DA. Gadd45 in Senescence. *Adv Exp Med Biol.* 2022;1360:109-116. doi: 10.1007/978-3-030-94804-7_8. PMID: 35505166
29. Zenga J, **Awan MJ**, Frei A, Petrie E, Sharma GP, Shreenivas A, Shukla M, Himburg HA. Chronic stress promotes an immunologic inflammatory state and head and neck cancer

growth in a humanized murine model. *Head Neck*. 2022 Jun;44(6):1324-1334. doi: 10.1002/hed.27028. Epub 2022 Mar 8. PMID: 35261119

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5. **Farooq U**, Sibille J, Liu K, Dragoi G. Strengthened Temporal Coordination within Pre-existing Sequential Cell Assemblies Supports Trajectory Replay. *Neuron*. 2019 Aug 21;103(4):719-733.e7. doi: 10.1016/j.neuron.2019.05.040. Epub 2019 Jun 25. PMID: 31253469; PMCID: PMC7197404.
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