

Journal Publications

1. **Vundavilli, H.**, Datta, A., Sima, C., Hua, J., Lopes, R., & Bittner, M. (2018). In silico design and experimental validation of combination therapy for pancreatic cancer. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 17(3), 1010–1018. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 3.4*)
2. **Vundavilli, H.**, Datta, A., Sima, C., Hua, J., Lopes, R., & Bittner, M. (2019). Bayesian inference identifies combination therapeutic targets in breast cancer. *IEEE Transactions on Biomedical Engineering*, 66(9), 2684–2692. (*Journal Indexing: WoS-SCIE-Q2; Impact factor: 4.5*)
3. **Vundavilli, H.**, Datta, A., Sima, C., Hua, J., Lopes, R., & Bittner, M. (2019). Cryptotanshinone induces cell death in lung cancer by targeting aberrant feedback loops. *IEEE Journal of Biomedical and Health Informatics*, 24(8), 2430–2438. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 6.8*)
4. **Vundavilli, H.**, Datta, A., Sima, C., Hua, J., Lopes, R., & Bittner, M. (2021). Targeting oncogenic mutations in colorectal cancer using cryptotanshinone. *PLoS One*, 16(2), e0247190. (*Journal Indexing: WoS-SCIE-Q2; Impact factor: 2.6*)
5. **Vundavilli, H.**, Tripathi, L. P., Datta, A., & Mizuguchi, K. (2021). Network modeling and inference of peroxisome proliferator-activated receptor pathway in high fat diet-linked obesity. *Journal of Theoretical Biology*, 519, 110647. (*Journal Indexing: WoS-SCIE-Q2; Impact factor: 2.0*)
6. **Vundavilli, H.**, Datta, A., Sima, C., Hua, J., Lopes, R., Bittner, M., Miller, T., & Wilson-Robles, H. M. (2022). Anti-tumor effects of cryptotanshinone (C₁₉H₂₀O₃) in human osteosarcoma cell lines. *Biomedicine & Pharmacotherapy*, 150, 112993. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 7.5*)
7. Gupta, S., **Vundavilli, H.**, Osorio, R. S. A., Itoh, M. N., Mohsen, A., Datta, A., Mizuguchi, K., & Tripathi, L. P. (2022). Integrative network modeling highlights the crucial roles of Rho-GDI signaling pathway in the progression of non-small cell lung cancer. *IEEE Journal of Biomedical and Health Informatics*, 26(9), 4785–4793. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 6.8*)
8. Lahiri, A., **Vundavilli, H.**, Mondal, M., Bhattacharjee, P., Decker, B., Del Priore, G., Reeves, N. P., & Datta, A. (2023). Drug target identification in triple negative breast cancer stem cell pathways: A computational study of gene regulatory pathways using Boolean networks. *IEEE Access*, 11, 56672–56690. (*Journal Indexing: WoS-SCIE-Q2; Impact factor: 3.6*)
9. Aparicio, A. M., Tidwell, R. S., Yadav, S. S., Chen, J.-S., Zhang, M., Liu, J., Guo, S., Pilié, P. G., Yu, Y., Song, X., & others. (2024). A Modular Trial of Androgen Signaling Inhibitor Combinations Testing a Risk-Adapted Strategy in Patients with Metastatic Castration-Resistant Prostate Cancer. *Clinical Cancer Research*, 30(13), 2751–2763. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 10.2*)

10. Mondal, M., Lahiri, A., **Vundavilli, H.**, Del Priore, G., Reeves, N. P., & Datta, A. (2024). A Computational Study of Efficient Combinations of FDA-approved drugs and dietary supplements in Endometrial Cancer. *IEEE Access*, 12, 190746–190759. (*Journal Indexing: WoS-SCIE-Q2; Impact factor: 3.6*)
11. Dhanka, S., Kumar, A., Sharma, A., **Vundavilli, H.**, Maini, S., & Rajasekar, E. (2025). Advances in machine learning and deep learning for hormonal disorder diagnosis: an exhaustive review on PCOS, thyroid, and optimization techniques. *Archives of Computational Methods in Engineering*, 1–45. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 12.1*)
12. Dhanka, S., Sharma, A., Kumar, A., Maini, S., & **Vundavilli, H.** (2026). Advancements in hybrid machine learning models for biomedical disease classification using integration of hyperparameter-tuning and feature selection methodologies: A comprehensive review. *Archives of Computational Methods in Engineering*, 33(1), 289–324. (*Journal Indexing: WoS-SCIE-Q1; Impact factor: 12.1*)

Conference Proceedings and Abstracts

1. **Vundavilli, H.**, Tumati, M., Hautaniemi, S., Datta, A., & Kauppi, L. (2022). Image Processing Pipeline to Compute Homologous Recombination Score. *Proceedings of the 12th International Conference on Biomedical Engineering and Technology*, 51–56.
2. Mondal, M., Lahiri, A., **Vundavilli, H.**, Del Priore, G., Reeves, P., & Datta, A. (2023). Combination supplements for endometrial cancer. *2023 IEEE 23rd International Conference on Bioinformatics and Bioengineering (BIBE)*, 238–243.
3. Viscuse, P. V., Tidwell, R., Liu, J., Guo, S., **Vundavilli, H.**, Zhang, M., Subudhi, S. K., Zurita, A. J., Corn, P. G., Tu, S.-M., & others. (2022). *DynAMo: A dynamic allocation modular sequential trial of approved and promising therapies in men with metastatic CRPC*. American Society of Clinical Oncology.
4. Logotheti, S., **Vundavilli, H.**, Papadaki, E., Zhao, Y., Estecio, M. R., Soundararajan, R., Shepherd, P., Dong, J., Hoang, A., Guo, S., & others. (2023). Candidate measures of lineage plasticity in aggressive phenotypes of prostate cancer. *Cancer Research*, 83(7_Supplement), 142–142.