

# Stanford

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## Amit Manhas

Postdoctoral Scholar, Cardiovascular Institute

### Bio

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#### HONORS AND AWARDS

- Best Poster Award, Stanford-Arizona-Morehouse-UAB Cardiovascular Research Symposium (August 15-16, 2024)
- Postdoctoral Fellowship, American Heart Association (2023)
- Excellence In Research Publication, CSIR-Central Drug Research Institute, Lucknow, India (2020)
- Senior Research Fellowship, Indian Council of Medical Research, New Delhi, India (2016)
- Best Poster presentation award, NIMS University (2010)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Heart Association, AHA (2021 - present)

#### PROFESSIONAL EDUCATION

- Bachelors of Pharmacy, IK Gujral Punjab Technical University, Punjab, India (2009)
- Masters in Pharmacy, NIMS University, Jaipur, India (2011)
- Ph.D, AcSIR, New Delhi, India (2020)

#### STANFORD ADVISORS

- Joseph Wu, Postdoctoral Faculty Sponsor

#### LINKS

- LinkedIn: <https://www.linkedin.com/in/amit-manhas-ph-d-0b3b7843/>
- Google Scholar: <https://scholar.google.co.in/citations?user=D7y2cGUAAA&hl=en>

### Publications

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#### PUBLICATIONS

- **CRISPRi/a screens in human iPSC-cardiomyocytes identify glycolytic activation as a druggable target for doxorubicin-induced cardiotoxicity.** *Cell stem cell*  
Liu, C., Shen, M., Liu, Y., Manhas, A., Zhao, S. R., Zhang, M., Belbachir, N., Ren, L., Zhang, J. Z., Caudal, A., Nishiga, M., Thomas, D., Zhang, et al  
2024
- **CCL2-mediated endothelial injury drives cardiac dysfunction in long COVID.** *Nature cardiovascular research*  
Thomas, D., Noishiki, C., Gaddam, S., Wu, D., Manhas, A., Liu, Y., Tripathi, D., Kathale, N., Adkar, S. S., Garhyan, J., Liu, C., Xu, B., Ross, et al  
2024; 3 (10): 1249-1265
- **Cardiovascular Toxicity in Cancer Therapy: Protecting the Heart while Combating Cancer.** *Current cardiology reports*

Manhas, A., Tripathi, D., Thomas, D., Sayed, N.

2024

- **Generation of two iPSC lines from dilated cardiomyopathy patients with pathogenic variants in the SCN5A gene.** *Stem cell research*  
Dexheimer, R., Manhas, A., Wu, D., Tripathi, D., Yu Chan, S., Li, J., Yu, R., Sayed, N., Wu, J. C., Sallam, K.  
2024; 80: 103498
- **Generation of two iPSC lines from vascular Ehlers-Danlos Syndrome (vEDS) patients carrying a missense mutation in COL3A1 gene.** *Stem cell research*  
Manhas, A., Tripathi, D., Noishiki, C., Wu, D., Liu, L., Sallam, K., Lee, J. T., Fukaya, E., Sayed, N.  
2024; 79: 103485
- **Harnessing iPSCs to Dissect Causality in Anthracycline-Induced Cardiotoxicity: All That Fits Are Not Hits.** *JACC. CardioOncology*  
Thomas, D., Manhas, A., Sayed, N.  
2024; 6 (1): 51-54
- **Generation of induced pluripotent stem cell line from a patient suffering from arterial calcification due to deficiency of CD73 (ACDC).** *Stem cell research*  
Tripathi, D., Manhas, A., Noishiki, C., Wu, D., Adkar, S., Sallam, K., Fukaya, E., Leeper, N. J., Sayed, N.  
2023; 75: 103285
- **Involvement of HIF1 $\alpha$ /Reg protein in the regulation of HMGB3 in myocardial infarction.** *Vascular pharmacology*  
Manhas, A., Tripathi, D., Jagavelu, K.  
2023; 152: 107197
- **Stepwise Generation of Human Induced Pluripotent Stem Cell-Derived Cardiac Pericytes to Model Coronary Microvascular Dysfunction.** *Circulation*  
Shen, M., Liu, C., Zhao, S. R., Manhas, A., Sundaram, L., Ameen, M., Wu, J. C.  
2023; 147 (6): 515-518
- **SGLT2 inhibitor ameliorates endothelial dysfunction associated with the common ALDH2 alcohol flushing variant.** *Science translational medicine*  
Guo, H., Yu, X., Liu, Y., Paik, D. T., Justesen, J. M., Chandy, M., Jahng, J. W., Zhang, T., Wu, W., Rwere, F., Zhao, S. R., Pokhrel, S., Shivnaraine, et al  
2023; 15 (680): eabp9952
- **Fabrication, characterization and in vivo assessment of cardiogel loaded chitosan patch for myocardial regeneration.** *International journal of biological macromolecules*  
Sharma, V., Manhas, A., Gupta, S., Dikshit, M., Jagavelu, K., Verma, R. S.  
2022
- **Generation of two induced pluripotent stem cell lines carrying the phospholamban R14del mutation for modeling ARVD/C.** *Stem cell research*  
Vera, C. D., Manhas, A., Shenoy, S. P., Wheeler, M. T., Sallam, K., Wu, J. C.  
2022; 63: 102834
- **Cannabinoid receptor 1 antagonist genistein attenuates marijuana-induced vascular inflammation.** *Cell*  
Wei, T. T., Chandy, M., Nishiga, M., Zhang, A., Kumar, K. K., Thomas, D., Manhas, A., Rhee, S., Justesen, J. M., Chen, I. Y., Wo, H. T., Khanamiri, S., Yang, et al  
2022
- **Engineered Nanoparticle-Protein Interactions Influence Protein Structural Integrity and Biological Significance.** *Nanomaterials (Basel, Switzerland)*  
Jaiswal, S., Manhas, A., Pandey, A. K., Priya, S., Sharma, S. K.  
2022; 12 (7)
- **Generation of two iPSC lines from hypertrophic cardiomyopathy patients carrying MYBPC3 and PRKAG2 variants.** *Stem cell research*  
Manhas, A., Jahng, J. W., Vera, C. D., Shenoy, S. P., Knowles, J. W., Wu, J. C.  
2022; 61: 102774
- **Xylocarpus moluccensis Fruit Fraction Rescues Cardiac Hypertrophy by Improving Angiogenesis and Regulating NF- $\kappa$ B-Mediated Inflammation** *Xylocarpus moluccensis Fruit Fraction Rescues Cardiac Hypertrophy by Improving Angiogenesis and Regulating NF- $\kappa$ B-Mediated Inflammation*  
Manhas, A., Goyal, D., Biswas, B., Tripathi, D., Yadav, P., Singh, A., Krishna, S., Tadigoppula, N., Dikshit, M., Jagavelu, K.  
2022; 18 (78): 286-295
- **Injectable hydrogel for co-delivery of 5-azacytidine in zein protein nanoparticles with stem cells for cardiac function restoration.** *International journal of pharmaceuticals*  
Sharma, V., Dash, S. K., Manhas, A., Radhakrishnan, J., Jagavelu, K., Verma, R. S.

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2021; 603: 120673

- **Proinflammatory Effect of Endothelial Microparticles Is Mitochondria Mediated and Modulated Through MAPKAPK2 (MAPK-Activated Protein Kinase 2) Leading to Attenuation of Cardiac Hypertrophy.** *Arteriosclerosis, thrombosis, and vascular biology*  
Tripathi, D., Biswas, B., Manhas, A., Singh, A., Goyal, D., Gaestel, M., Jagavelu, K.  
2019; 39 (6): 1100-1112
- **Inhibition of fatty acid synthase is protective in pulmonary hypertension.** *British journal of pharmacology*  
Singh, N., Manhas, A., Kaur, G., Jagavelu, K., Hanif, K.  
2016; 173 (12): 2030-45
- **Non-carbonyl Curcuma longa [NCCL] protects the heart from myocardial ischemia/reperfusion injury by reducing endothelial microparticle mediated inflammation in rats** *RSC ADVANCES*  
Manhas, A., Tripathi, D., Biswas, B., Ahmad, H., Goyal, D., Dwivedi, A., Dikshit, M., Jagavelu, K.  
2016; 6 (60): 54938-54948
- **Curcuma oil reduces endothelial cell-mediated inflammation in postmyocardial ischemia/reperfusion in rats.** *Journal of cardiovascular pharmacology*  
Manhas, A., Khanna, V., Prakash, P., Goyal, D., Malasoni, R., Naqvi, A., Dwivedi, A. K., Dikshit, M., Jagavelu, K.  
2014; 64 (3): 228-36
- **Synthetic FXR agonist GW4064 is a modulator of multiple G protein-coupled receptors.** *Molecular endocrinology (Baltimore, Md.)*  
Singh, N., Yadav, M., Singh, A. K., Kumar, H., Dwivedi, S. K., Mishra, J. S., Gurjar, A., Manhas, A., Chandra, S., Yadav, P. N., Jagavelu, K., Siddiqi, M. I., Trivedi, et al  
2014; 28 (5): 659-73