

Stanford



Danielle Maria Mullis

MD Student with Scholarly Concentration in Molecular Basis of Medicine / Cardiovascular-Pulmonary Sciences, expected graduation Spring 2025

Bio

INSTITUTE AFFILIATIONS

- Member (Student), Cardiovascular Institute

HONORS AND AWARDS

- Stanford Cardiovascular Institute Travel Award, Stanford Cardiovascular Institute (05/20/2023)
- CORES Open Science Innovator Prize, Stanford Data Science (05/12/2023)
- Medical Student Symposium 2022 Prize Winner, Stanford School of Medicine (05/05/2022)
- AATS Member for a Day Scholarship, American Association for Thoracic Surgery (05/01/2022)
- Research Fellowship Grant, Stanford School of Medicine Med Scholars Program (09/01/2021)
- Boring Trust Research Award, Stanford Cardiovascular Institute (06/01/2021)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Early Career Committee Member, Stanford Cardiovascular Institute (2021 - present)

Publications

PUBLICATIONS

- **Large Animal Translational Validation of 3 Mitral Valve Repair Operations for Mitral Regurgitation Using a Mitral Valve Prolapse Model: A Comprehensive In Vivo Biomechanical Engineering Analysis.** *Circulation. Cardiovascular interventions*
Zhu, Y., Yajima, S., Park, M. H., Venkatesh, A., Stark, C. J., Tran, N. A., Walsh, S. K., Ethiraj, S., Wilkerson, R. J., Lin, L. E., Lee, S. H., Gates, K. Y., Arthur, et al
2024; 17 (4): e013196
- **Stromal cell-derived factor-1 alpha improves cardiac function in a novel diet-induced coronary atherosclerosis model, the SR-B1#CT/LDLR KO mouse.** *Atherosclerosis*
Mullis, D. M., Padilla-Lopez, A., Wang, H., Zhu, Y., Elde, S., Bonham, S. A., Yajima, S., Kocher, O. N., Krieger, M., Woo, Y. J.
2024: 117518
- **Four Decades of Progress in Heart-Lung Transplantation: 271 Cases at a Single Institution.** *The Journal of thoracic and cardiovascular surgery*
Elde, S., Baccouche, B. M., Mullis, D. M., Leipzig, M. M., Deuse, T., Krishnan, A., Fawad, M., Dale, R., Walsh, S., Padilla-Lopez, A., Wesley, B., He, H., Yajima, et al
2024
- **Successful Treatment of Rapidly Evolving Cutaneous Leishmaniasis With Amphotericin B and Miltefosine in an Immigrant From Venezuela.** *Open forum infectious diseases*
Mullis, D. M., Shegog, E., Studemeister, L., Hwang, M.
2024; 11 (2): ofad683

- **Impact of Integrated Vascular Surgery Residency Training Pathway and Professional Development Time on Career Choice and Research Productivity.** *Journal of surgical education*
Fereydooni, A., Fisher, A. T., Mullis, D. M., Smith, B. K., Sgroi, M. D.
2023
- **Reconstruction of the aorta and pulmonary artery during heart-liver transplantation in an adult congenital patient.** *JTCVS techniques*
Mullis, D. M., Limbu, L., Bonham, C. A., MacArthur, J. W.
2023; 21: 129-131
- **Biomechanics and clinical outcomes of various conduit configurations in valve sparing aortic root replacement.** *Annals of cardiothoracic surgery*
Zhu, Y., Park, M. H., Pandya, P. K., Stark, C. J., Mullis, D. M., Walsh, S. K., Kim, J. Y., Wu, C. A., Baccouche, B. M., Lee, S. H., Baraka, A. S., Joo, H., Yajima, et al
2023; 12 (4): 326-337
- **Individual and program-related predictors of academic vascular surgery practice.** *Annals of vascular surgery*
Fisher, A. T., Fereydooni, A., Mullis, D. M., Smith, B. K., Sgroi, M. D.
2023
- **Results following implementation of a cardiac surgery ERAS protocol.** *PloS one*
Obafemi, T., Mullis, D., Bajaj, S., Krishna, P., Boyd, J.
2023; 18 (7): e0277868
- **Impact of Integrated Vascular Surgery Residency Training Pathway and Professional Development Time on Career Choice and Research Productivity**
Fereydooni, A., Fisher, A. T., Mullis, D. M., Smith, B. K., Sgroi, M. D.
MOSBY-ELSEVIER.2023: E37-E38
- **Trimmed central venous catheters do not increase endothelial injury in an ovine model.** *The journal of vascular access*
Wang, H., Williams, K. M., Elde, S., Bulterys, P. L., Thakore, A. D., Lucian, H. J., Farry, J. M., Mullis, D. M., Zhu, Y., Paulsen, M. J., Woo, Y. J.
2023: 11297298231153716
- **Twenty-Year Single-Center Experience of Catheter Ablation of Ventricular Tachycardia and Progression to Heart Transplantation** *Basic Cardiovascular Sciences Scientific Sessions 2023*
Mullis, D. M., Obafemi, O. O., Kumar, S. S., Kang, A. W., Pelissero, O. G., Aparicio-Valenzuela, J., Haddad, F., Lee, A. M.
2023
- **Results following implementation of a cardiac surgery ERAS protocol** *PLoS One*
Obafemi, T., Mullis, D. M., Bajaj, S., Krishna, P., Boyd, J.
2023
- **Sustained Natural Heart Regeneration After Myocardial Infarction in One-Week-Old Rats Without Significant Cardiomyocyte Proliferation** *American Heart Association*
Wang, H., Shin, H., Elde, S., Mullis, D. M., Walsh, S., Lee, S., Hironaka, C., Lucian, H., Thakore, A., Tran, N., Jung, J., Wu, M., Zhu, et al
2023
- **Impact of Donor-Recipient Race Matching on Survival of Patients with Congenital Heart Disease After Heart Transplantation** *Stanford-UPenn-Duke-Weill Cornell Cardiovascular Research Symposium*
Garrison, A., Mullis, D. M., Krishnan, A., Heng, E., Alnasir, D., Woo, Y., MacArthur, J. W.
2023
- **Long-Term Outcomes After Lung Transplantation in Pediatric Patients with Intellectual Disability** *Stanford-UPenn-Duke-Weill Cornell Cardiovascular Research Symposium*
Mullis, D. M., Lee, J. Y., Zawadzki, R. S., Nilkant, R., Kuhan, S., Kidambi, S., Sharir, A., Ma, M.
2023
- **Mechanisms of Failure for the Systemic Right Ventricle in Patients with Congenital Heart Disease** *Stanford-UPenn-Duke-Weill Cornell Cardiovascular Research Symposium*
Nilkant, R., Mullis, D. M., Sharir, A., Choi, P., Ma, M.
2023
- **Social Isolation Decreases Survival and Worsens Cardiac Function in a Novel Murine Model of Coronary Atherosclerosis** *American Heart Association*
Mullis, D. M., Wang, H., Zhu, Y., Bonham, S., Padilla-Lopez, A., Kocher, O., Krieger, M., Woo, Y.

2023

- **Resection of a synovial cell sarcoma by cardiac autotransplantation: A case report.** *JTCVS techniques*
Mullis, D. M., Zhu, Y., Guenthart, B. A., Bonham, S. A., Trope, W. L., Berry, G. J., Woo, Y. J., MacArthur, J. W.
2022; 16: 123-127
- **The Critical Biomechanics of Aortomitral Angle and Systolic Anterior Motion: Engineering Native Ex Vivo Simulation.** *Annals of biomedical engineering*
Park, M. H., Imbrie-Moore, A. M., Zhu, Y., Wilkerson, R. J., Wang, H., Park, G. H., Wu, C. A., Pandya, P. K., Mullis, D. M., Marin-Cuartas, M., Woo, Y. J.
2022
- **A Novel Rheumatic Mitral Valve Disease Model with Ex Vivo Hemodynamic and Biomechanical Validation.** *Cardiovascular engineering and technology*
Park, M. H., Pandya, P. K., Zhu, Y., Mullis, D. M., Wang, H., Imbrie-Moore, A. M., Wilkerson, R., Marin-Cuartas, M., Woo, Y. J.
2022
- **Biomechanical Engineering Analysis of Pulmonary Valve Leaflet Hemodynamics and Kinematics in the Ross Procedure.** *Journal of biomechanical engineering*
Zhu, Y., Wilkerson, R., Pandya, P., Mullis, D., Wu, C., Madira, S., Marin-Cuartas, M., Park, M. H., Imbrie-Moore, A., Woo, Y. J.
2022
- **A novel photosynthetic biologic topical gel for enhanced localized hyperoxygenation augments wound healing in peripheral artery disease.** *Scientific reports*
Zhu, Y., Jung, J., Anilkumar, S., Ethiraj, S., Madira, S., Tran, N. A., Mullis, D. M., Casey, K. M., Walsh, S. K., Stark, C. J., Venkatesh, A., Boakye, A., Wang, et al
2022; 12 (1): 10028
- **Characteristics of Integrated Thoracic Surgery Residency Matriculants: A Survey of Program Directors.** *The Annals of thoracic surgery*
Obafemi, O. O., Mullis, D. M., Rogers, A. B., Lee, A. M.
2022
- **Electrophysiologic Conservation of Epicardial Conduction Dynamics After Myocardial Infarction and Natural Heart Regeneration in Newborn Piglets.** *Frontiers in cardiovascular medicine*
Wang, H., Pong, T., Obafemi, O. O., Lucian, H. J., Aparicio-Valenzuela, J., Tran, N. A., Mullis, D. M., Elde, S., Tada, Y., Baker, S. W., Wang, C. Y., Cyr, K. J., Paulsen, et al
2022; 9: 829546
- **From hardware store to hospital: a COVID-19-inspired, cost-effective, open-source, in vivo-validated ventilator for use in resource-scarce regions.** *Bio-design and manufacturing*
Park, M. H., Zhu, Y., Wang, H., Tran, N. A., Jung, J., Paulsen, M. J., Imbrie-Moore, A. M., Baker, S., Wilkerson, R., Marin-Cuartas, M., Mullis, D. M., Woo, Y. J.
2021: 1-8
- **Ex vivo biomechanical analysis of the Ross procedure using the modified inclusion technique in a 3-dimensionally printed left heart simulator.** *The Journal of thoracic and cardiovascular surgery*
Zhu, Y., Marin-Cuartas, M., Park, M. H., Imbrie-Moore, A. M., Wilkerson, R. J., Madira, S., Mullis, D. M., Woo, Y. J.
2021
- **A neonatal leporine model of age-dependent natural heart regeneration after myocardial infarction.** *The Journal of thoracic and cardiovascular surgery*
Wang, H., Hironaka, C. E., Mullis, D. M., Lucian, H. J., Shin, H. S., Tran, N. A., Thakore, A. D., Anilkumar, S., Wu, M. A., Paulsen, M. J., Zhu, Y., Baker, S. W., Woo, et al
2021
- **Reductively Stable Hydrogen-Bonding Ligands Featuring Appended CF2-H Units** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Shanahan, J. P., Mullis, D. M., Zeller, M., Szymczak, N. K.
2020; 142 (19): 8809–17