

Stanford



Hanjay Wang

- Resident in Cardiothoracic Surgery
- Affiliate, Dean's Office Operations - Dean Other

Bio

INSTITUTE AFFILIATIONS

- Member (Postdoc), Cardiovascular Institute

PROFESSIONAL EDUCATION

- MD, Columbia University, College of Physicians and Surgeons , Medicine (2015)
- BA, Harvard University , Molecular and Cellular Biology, Music (2011)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Precision surgery: patient-specific bypass grafting and valve repair strategies

Autonomous robotic surgery

Photosynthetic therapies to circumvent myocardial ischemia

Collateral artery formation as protection against myocardial infarction

Angiogenesis and myocardial regeneration to prevent heart failure

Tissue engineering to limit ventricular remodeling

Understanding the biomechanics of injured and failing hearts

CURRENT CLINICAL INTERESTS

- Coronary Revascularization
- Heart Transplantation
- Mitral Valve Repair
- Minimally Invasive Surgery
- Robotics
- Thoracic Aortic Aneurysm
- Aortic Valve Repair
- Ventricular Assist Devices

LAB AFFILIATIONS

- Joseph Woo, Stanford Advanced Therapeutics for Heart Failure Research Laboratory (7/1/2017 - - 6/30/2020)

Publications

PUBLICATIONS

- **Biodegradable external wrapping promotes favorable adaptation in an ovine vein graft model.** *Acta biomaterialia*
Ramachandra, A. B., Wang, H., Wnorowski, A., Schwarz, E. L., Pickering, J., Heiler, J. C., Lucian, H. J., Hironaka, C. E., Tran, N. A., Liu, Y., Khan, M. O., Obafemi, O., Tada, et al
2022
- **Diminishing Basic Science Research Experience Among United States Cardiothoracic Surgery Trainees.** *The Journal of surgical research*
Wang, H., Bajaj, S. S., Manjunatha, K., Yu, M. M., Obafemi, O. O., Williams, K. M., Boyd, J. H.
2022; 279: 312-322
- **Quantitative goals for research output and scholarly impact to enhance basic science R01 grant renewal for cardiothoracic surgeons.** *JTCVS open*
Wang, H., Bajaj, S. S., Heiler, J. C., Krishnan, A., Williams, K. M., Woo, Y. J., Boyd, J. H.
2022; 9: 162-175
- **Natural cardiac regeneration conserves native biaxial left ventricular biomechanics after myocardial infarction in neonatal rats.** *Journal of the mechanical behavior of biomedical materials*
Wang, H., Wisneski, A., Imbrie-Moore, A. M., Paulsen, M. J., Wang, Z., Xuan, Y., Lopez Hernandez, H., Hironaka, C. E., Lucian, H. J., Shin, H. S., Anilkumar, S., Thakore, A. D., Farry, et al
1800; 126: 105074
- **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
- **The impact of the American Association for Thoracic Surgery on National Institutes of Health grant funding for cardiothoracic surgeons.** *The Journal of thoracic and cardiovascular surgery*
Mehaffey, J. H., Wang, H., Narahari, A. K., Bajaj, S. S., Chandrabhatla, A. S., Krupnick, A. S., Sellke, F. W., Rosengart, T. K., 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
- **Characterization of Cardiothoracic Surgeons Actively Leading Basic Science Research.** *The Journal of surgical research*
Wang, H., Bajaj, S. S., Krishnan, A., Heiler, J. C., Williams, K. M., Pickering, J. M., Manjunatha, K., Sanchez, M., O'Donnell, C. T., Boyd, J. H.
2021; 268: 371-380
- **Early Engagement in Cardiothoracic Surgery Research Enhances Future Academic Productivity.** *The Annals of thoracic surgery*
Wang, H., Bajaj, S. S., Williams, K. M., Heiler, J. C., Pickering, J. M., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H.
2020
- **Multiaxial Lenticular Stress-Strain Relationship of Native Myocardium is Preserved by Infarct-Induced Natural Heart Regeneration in Neonatal Mice.** *Scientific reports*
Wang, H., Bennett-Kennett, R., Paulsen, M. J., Hironaka, C. E., Thakore, A. D., Farry, J. M., Eskandari, A., Lucian, H. J., Shin, H. S., Wu, M. A., Imbrie-Moore, A. M., Steele, A. N., Stapleton, et al
2020; 10 (1): 7319
- **Natural Heart Regeneration in a Neonatal Rat Myocardial Infarction Model.** *Cells*
Wang, H., Paulsen, M. J., Hironaka, C. E., Shin, H. S., Farry, J. M., Thakore, A. D., Jung, J., Lucian, H. J., Eskandari, A., Anilkumar, S., Wu, M. A., Cabatu, M. C., Steele, et al
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- **Endoscopic Radial Artery Harvesting During Anesthesia Line Placement Reduces the Time and Cost of Multivessel Coronary Artery Bypass Grafting.** *Innovations (Philadelphia, Pa.)*
Wang, H., Bilbao, M. S., Miller, S. L., O'Donnell, C. T., Boyd, J. H.

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- **In Vivo Validation of Restored Chordal Biomechanics After Mitral Ring Annuloplasty in a Rare Ovine Case of Natural Chronic Functional Mitral Regurgitation.** *Journal of cardiovascular development and disease*
Wang, H. n., Paulsen, M. J., Imbrie-Moore, A. M., Tada, Y. n., Bergamasco, H. n., Baker, S. W., Shudo, Y. n., Ma, M. n., Woo, J. Y.
2020; 7 (2)
- **Off-Pump Mini Thoracotomy Versus Sternotomy for Left Anterior Descending Myocardial Bridge Unroofing.** *The Annals of thoracic surgery*
Wang, H. n., Pargaonkar, V. S., Hironaka, C. E., Bajaj, S. S., Abbot, C. J., O'Donnell, C. T., Miller, S. L., Honda, Y. n., Rogers, I. S., Tremmel, J. A., Fischbein, M. P., Mitchell, R. S., Schnittger, et al
2020
- **Photosynthetic symbiotic therapy.** *Aging*
Wang, H., Wu, M. A., Woo, Y. J.
2019
- **A Unique Collateral Artery Development Program Promotes Neonatal Heart Regeneration.** *Cell*
Das, S., Goldstone, A. B., Wang, H., Farry, J., D'Amato, G., Paulsen, M. J., Eskandari, A., Hironaka, C. E., Phansalkar, R., Sharma, B., Rhee, S., Shamskhov, E. A., Agalliu, et al
2019
- **Bioengineered analog of stromal cell-derived factor 1# preserves the biaxial mechanical properties of native myocardium after infarction.** *Journal of the mechanical behavior of biomedical materials*
Wang, H. n., Wisneski, A. n., Paulsen, M. J., Imbrie-Moore, A. n., Wang, Z. n., Xuan, Y. n., Hernandez, H. L., Lucian, H. J., Eskandari, A. n., Thakore, A. D., Farry, J. M., Hironaka, C. E., von Bornstaedt, et al
2019; 96: 165–71
- **Use of a supramolecular polymeric hydrogel as an effective post-operative pericardial adhesion barrier.** *Nature biomedical engineering*
Stapleton, L. M., Steele, A. N., Wang, H. n., Lopez Hernandez, H. n., Yu, A. C., Paulsen, M. J., Smith, A. A., Roth, G. A., Thakore, A. D., Lucian, H. J., Totherow, K. P., Baker, S. W., Tada, et al
2019; 3 (8): 611–20
- **Scimitar Syndrome in Children and Adults: Natural History, Outcomes, and Risk Analysis.** *The Annals of thoracic surgery*
Wang, H., Kalfa, D., Rosenbaum, M. S., Ginns, J. N., Lewis, M. J., Glickstein, J. S., Bacha, E. A., Chai, P. J.
2018; 105 (2): 592-598
- **Electrophysiological mapping of the epicardium via 3D-printed flexible arrays** *BIOENGINEERING & TRANSLATIONAL MEDICINE*
Pong, T., Cyr, K. J., Carlton, C., Aparicio-Valenzuela, J., Wang, H., Babakhanian, M., Maituolo, A., Lucian, H., Wang, P. J., Woo, Y., Lee, A. M.
2023
- **Dedifferentiation and Proliferation of Artery Endothelial Cells Drive Coronary Collateral Development in Mice.** *Arteriosclerosis, thrombosis, and vascular biology*
Arolkar, G., Krishna Kumar, S., Wang, H., Gonzalez, K. M., Kumar, S., Bishnoi, B., Rios Coronado, P. E., Woo, Y. J., Red-Horse, K., Das, S.
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- **First-in-human beating-heart transplant.** *JTCVS techniques*
Krishnan, A., Kasinpila, P., Wang, H., Ruaengsri, C., Shudo, Y., Jackson, E., Woo, Y. J.
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- **Microfluidic encapsulation of photosynthetic cyanobacteria in hydrogel microparticles augments oxygen delivery to rescue ischemic myocardium.** *Journal of bioscience and bioengineering*
Stapleton, L. M., Farry, J. M., Zhu, Y., Lucian, H. J., Wang, H., Paulsen, M. J., Totherow, K. P., Roth, G. A., Brower, K. K., Fordyce, P. M., Appel, E. A., Woo, Y. J.
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- **Strategies for Transcatheter Aortic Valve Replacement in Patients With a Right Aortic Arch** *STRUCTURAL HEART-THE JOURNAL OF THE HEART TEAM*
Wang, H., Akanbi, O., MacArthur, J. W., Sharma, R. P.
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- **Strategies for Transcatheter Aortic Valve Replacement in Patients With a Right Aortic Arch.** *Structural heart : the journal of the Heart Team*
Wang, H., Akanbi, O., MacArthur, J. W., Sharma, R. P.

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- **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.
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- **Beating heart pulmonary autograft harvest and modified inclusion technique with anti-commissural plication for the Ross procedure.** *JTCVS techniques*
Zhu, Y., Wang, H., Woo, Y. J.
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- **Native and Post-Repair Residual Mitral Valve Prolapse Increases Forces Exerted on the Papillary Muscles: A Possible Mechanism for Localized Fibrosis?** *Circulation. Cardiovascular interventions*
Park, M. H., van Kampen, A., Melnitchouk, S., Wilkerson, R. J., Nagata, Y., Zhu, Y., Wang, H., Pandya, P. K., Morningstar, J. E., Borger, M. A., Levine, R. A., Woo, Y. J.
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- **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
- **Impact of PhD Degree Versus Non-PhD Research Fellowship on Future Research Productivity Among Academic Cardiothoracic Surgeons.** *World journal of surgery*
Bajaj, S. S., Wang, H., Williams, K. M., Heiler, J. C., Pickering, J. M., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H.
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
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- **An automated line-clearing chest tube system after cardiac surgery.** *JTCVS open*
Obafemi, O. O., Wang, H., Bajaj, S. S., O'Donnell, C. T., Elde, S., Boyd, J. H.
2022; 10: 246-253
- **Career Progression and Research Productivity of Women in Academic Cardiothoracic Surgery.** *The Annals of thoracic surgery*
Williams, K. M., Wang, H., Bajaj, S. S., Hironaka, C. E., Kasinpila, P., O'Donnell, C. T., Sanchez, M., Watkins, A. C., Lui, N. S., Backhus, L. M., Boyd, J.
2022
- **Integration of Reinforcement Learning in a Virtual Robotic Surgical Simulation.** *Surgical innovation*
Bourdillon, A. T., Garg, A., Wang, H., Woo, Y. J., Pavone, M., Boyd, J.
2022: 15533506221095298
- **Biomechanical analysis of neochordal repair error from diastolic phase inversion of static left ventricular pressurization.** *JTCVS techniques*
Park, M. H., Marin-Cuartas, M., Imbrie-Moore, A. M., Wilkerson, R. J., Pandya, P. K., Zhu, Y., Wang, H., Borger, M. A., Woo, Y. J.
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- **Analyzing the Scholarly Impact of Cardiothoracic Surgery Research Using the Relative Citation Ratio.** *The Journal of surgical research*
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- **Colocalization of Coronary Plaque with Wall Shear Stress in Myocardial Bridge Patients.** *Cardiovascular engineering and technology*
Khan, M. O., Nishi, T., Imura, S., Seo, J., Wang, H., Honda, Y., Nieman, K., Rogers, I. S., Tremmel, J. A., Boyd, J., Schnittger, I., Marsden, A.
2022
- **Biomechanical Analysis of the Ross Procedure in an Ex Vivo Left Heart Simulator.** *World journal for pediatric & congenital heart surgery*

- Bryan, A. Y., Brandon Strong, E., Kidambi, S., Gilligan-Steinberg, S., Bennett-Kennett, R., Lee, J. Y., Imbrie-Moore, A., Moye, S. C., Hendrickx-Rodriguez, S., Wang, H., Dauskardt, R. H., Joseph Woo, Y., Ma, et al
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- **Applications of Tissue Decellularization Techniques in Ventricular Myocardial Biofabrication.** *Frontiers in bioengineering and biotechnology*
Krishnan, A., Wang, H., MacArthur, J. W.
2022; 10: 802283
 - **Post-Transplant Extracorporeal Membrane Oxygenation for Severe Primary Graft Dysfunction to Support the Use of Marginal Donor Hearts.** *Transplant international : official journal of the European Society for Organ Transplantation*
Shudo, Y., Alassar, A., Wang, H., Lingala, B., He, H., Zhu, Y., Hiesinger, W., MacArthur, J. W., Boyd, J. H., Lee, A. M., Currie, M., Woo, Y. J.
2022; 35: 10176
 - **Analysis of the revised heart allocation policy and the influence of increased mechanical circulatory support on survival.** *The Journal of thoracic and cardiovascular surgery*
Elde, S., He, H., Lingala, B., Baiocchi, M., Wang, H., Hiesinger, W., MacArthur, J. W., Shudo, Y., Woo, Y. J.
1800
 - **Biomechanical engineering comparison of four leaflet repair techniques for mitral regurgitation using a novel 3-dimensional-printed left heart simulator** *JTCVS TECHNIQUES*
Paulsen, M. J., Cuartas, M., Imbrie-Moore, A., Wang, H., Wilkerson, R., Farry, J., Zhu, Y., Ma, M., MacArthur, J. W., Woo, Y.
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 - **Biomechanical engineering comparison of four leaflet repair techniques for mitral regurgitation using a novel 3-dimensional-printed left heart simulator.** *JTCVS techniques*
Paulsen, M. J., Cuartas, M. M., Imbrie-Moore, A., Wang, H., Wilkerson, R., Farry, J., Zhu, Y., Ma, M., MacArthur, J. W., Woo, Y. J.
2021; 10: 244-251
 - **The Academic Impact of Advanced Clinical Fellowship Training among General Thoracic Surgeons.** *Journal of surgical education*
Patel, D. C., Wang, H., Bajaj, S. S., Williams, K. M., Pickering, J. M., Heiler, J. C., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H., Backhus, L. M.
2021
 - **Impact of Diastolic Vessel Restriction on Quality of Life in Symptomatic Myocardial Bridging Patients Treated With Surgical Unroofing: Preoperative Assessments With Intravascular Ultrasound and Coronary Computed Tomography Angiography.** *Circulation. Cardiovascular interventions*
Hashikata, T., Honda, Y., Wang, H., Pargaonkar, V. S., Nishi, T., Hollak, M. B., Rogers, I. S., Nieman, K., Yock, P. G., Fitzgerald, P. J., Schnittger, I., Boyd, J. H., Tremmel, et al
2021; 14 (10): e011062
 - **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
 - **Characterization of academic cardiothoracic surgeons who started as attendings in private or community practice.** *Surgery*
Bajaj, S. S., Wang, H., Williams, K. M., Krishnan, A., Heiler, J. C., Pickering, J. M., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H.
2021
 - **The Use of Factor Eight Inhibitor Bypass Activity (FEIBA) for the Treatment of Perioperative Hemorrhage in Left Ventricular Assist Device Implantation.** *Journal of cardiothoracic and vascular anesthesia*
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2021
 - **Career Research Productivity Correlates With Medical School Ranking Among Cardiothoracic Surgeons.** *The Journal of surgical research*
Bajaj, S. S., Wang, H., Williams, K. M., Pickering, J. M., Heiler, J. C., Manjunatha, K., Sanchez, M., O'Donnell, C. T., Boyd, J. H.
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 - **Successful beating-heart repair of pulmonary artery dissection using a composite valve-tube graft.** *Journal of cardiac surgery*
de Biasi, A. R., Wang, H., Medina, M. G., Burton, E., Ogden, W. D.
2021
 - **Navigating the Crossroads of Cell Therapy and Natural Heart Regeneration** *Frontiers in Cell and Developmental Biology*

- Elde, S., Wang, H., Woo, Y.
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- **Heart Valve Biomechanics: The Frontiers of Modeling Modalities and the Expansive Capabilities of Ex Vivo Heart Simulation.** *Frontiers in cardiovascular medicine*
Park, M. H., Zhu, Y., Imbrie-Moore, A. M., Wang, H., Marin-Cuartas, M., Paulsen, M. J., Woo, Y. J.
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 - **THE SAFETY AND EFFICACY OF PERIOPERATIVE FEIBA AFTER LEFT VENTRICULAR ASSIST DEVICE IMPLANTATION**
ODonnell, C., Rodriguez, A., Madhok, J., Wang, H., Shad, R., Sharifi, H., Boyd, J., William, H., Hsu, J., Hill, C.
LIPPINCOTT WILLIAMS & WILKINS.2021: 168
 - **The Expanding Armamentarium of Innovative Bioengineered Strategies to Augment Cardiovascular Repair and Regeneration** *Frontiers in Bioengineering and Biotechnology*
Elde, S., Wang, H., Woo, Y.
2021: 674172
 - **National Institutes of Health R01 Grant Funding Is Associated with Enhanced Research Productivity and Career Advancement Among Academic Cardiothoracic Surgeons.** *Seminars in thoracic and cardiovascular surgery*
Bajaj, S. S., Wang, H., Williams, K. M., Pickering, J. M., Heiler, J. C., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H.
2020
 - **New Attending Surgeons Hired by Their Training Institution Exhibit Greater Research Productivity.** *The Annals of thoracic surgery*
Bajaj, S. S., Wang, H., Williams, K. M., Pickering, J. M., Heiler, J. C., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H.
2020
 - **Impact of advanced clinical fellowship training on future research productivity and career advancement in adult cardiac surgery.** *Surgery*
Wang, H., Bajaj, S. S., Williams, K. M., Pickering, J. M., Heiler, J. C., Manjunatha, K., O'Donnell, C. T., Sanchez, M., Boyd, J. H.
2020
 - **Collagen-Supplemented Incubation Rapidly Augments Mechanical Property of Fibroblast Cell Sheets.** *Tissue engineering. Part A*
Zhu, Y., Thakore, A. D., Farry, J. M., Jung, J., Anilkumar, S., Wang, H., Imbrie-Moore, A. M., Park, M. H., Tran, N. A., Woo, Y. J.
2020
 - **Transcriptional Profiling of Normal, Stenotic, and Regurgitant Human Aortic Valves.** *Genes*
Greene, C. L., Jaatinen, K. J., Wang, H., Koyano, T. K., Bilbao, M. S., Woo, Y. J.
2020; 11 (7)
 - **Ex Vivo Analysis of a Porcine Bicuspid Aortic Valve and Aneurysm Disease Model.** *The Annals of thoracic surgery*
Zhu, Y., Imbrie-Moore, A. M., Park, M. H., Paulsen, M. J., Wang, H., MacArthur, J. W., Woo, Y. J.
2020
 - **Novel bicuspid aortic valve model with aortic regurgitation for hemodynamic status analysis using an exvivo simulator.** *The Journal of thoracic and cardiovascular surgery*
Zhu, Y., Imbrie-Moore, A. M., Paulsen, M. J., Priomprintr, B., Wang, H., Lucian, H. J., Farry, J. M., Woo, Y. J.
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 - **Bilateral vs. Single Internal Mammary Artery Grafts for Coronary Artery Bypass in the United States.** *The Annals of thoracic surgery*
Zhu, Y., Lingala, B., Wang, H., Woo, Y. J.
2020
 - **Safety of photosynthetic *Synechococcus elongatus* for in vivo cyanobacteria-mammalian symbiotic therapeutics.** *Microbial biotechnology*
Williams, K. M., Wang, H., Paulsen, M. J., Thakore, A. D., Rieck, M., Lucian, H. J., Grady, F., Hironaka, C. E., Chien, A. J., Farry, J. M., Shin, H. S., Jaatinen, K. J., Eskandari, et al
2020
 - **A novel cross-species model of Barlow's disease to biomechanically analyze repair techniques in an exvivo left heart simulator.** *The Journal of thoracic and cardiovascular surgery*
Imbrie-Moore, A. M., Paulsen, M. J., Zhu, Y., Wang, H., Lucian, H. J., Farry, J. M., MacArthur, J. W., Ma, M., Woo, Y. J.
2020

- **A novel 3D-Printed preferential posterior mitral annular dilation device delineates regurgitation onset threshold in an ex vivo heart simulator.** *Medical engineering & physics*
Imbrie-Moore, A. M., Paullin, C. C., Paulsen, M. J., Grady, F., Wang, H., Hironaka, C. E., Farry, J. M., Lucian, H. J., Woo, Y. J.
2020
- **Multi-phase catheter-injectable hydrogel enables dual-stage protein-engineered cytokine release to mitigate adverse left ventricular remodeling following myocardial infarction in a small animal model and a large animal model.** *Cytokine*
Steele, A. N., Paulsen, M. J., Wang, H. n., Stapleton, L. M., Lucian, H. J., Eskandari, A. n., Hironaka, C. E., Farry, J. M., Baker, S. W., Thakore, A. D., Jaatinen, K. J., Tada, Y. n., Hollander, et al
2020; 127: 154974
- **Artificial papillary muscle device for off-pump transapical mitral valve repair.** *The Journal of thoracic and cardiovascular surgery*
Imbrie-Moore, A. M., Zhu, Y. n., Park, M. H., Paulsen, M. J., Wang, H. n., Woo, Y. J.
2020
- **Biomimetic six-axis robots replicate human cardiac papillary muscle motion: pioneering the next generation of biomechanical heart simulator technology.** *Journal of the Royal Society, Interface*
Imbrie-Moore, A. M., Park, M. H., Paulsen, M. J., Sellke, M. n., Kulkami, R. n., Wang, H. n., Zhu, Y. n., Farry, J. M., Bourdillon, A. T., Callinan, C. n., Lucian, H. J., Hironaka, C. E., Deschamps, et al
2020; 17 (173): 20200614
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Cohen, J. E., Goldstone, A. B., Wang, H. n., Purcell, B. P., Shudo, Y. n., MacArthur, J. W., Steele, A. N., Paulsen, M. J., Edwards, B. B., Aribéana, C. N., Cheung, N. C., Burdick, J. A., Woo, et al
2020; 7 (4)
- **Comprehensive Ex Vivo Comparison of 5 Clinically Used Conduit Configurations for Valve-Sparing Aortic Root Replacement Using a 3-Dimensional-Printed Heart Simulator.** *Circulation*
Paulsen, M. J., Imbrie-Moore, A. M., Baiocchi, M. n., Wang, H. n., Hironaka, C. E., Lucian, H. J., Farry, J. M., Thakore, A. D., Zhu, Y. n., Ma, M. n., MacArthur, J. W., Woo, Y. J.
2020; 142 (14): 1361–73
- **Women in Thoracic Surgery Scholarship: Impact on Career Path and Interest in Cardiothoracic Surgery.** *The Annals of thoracic surgery*
Williams, K. M., Hironaka, C. E., Wang, H. n., Bajaj, S. S., O'Donnell, C. T., Sanchez, M. n., Boyd, J. n., Kane, L. n., Backhus, L. n.
2020
- **Long-term outcome of orthotopic heart transplantation in Asians: An analysis of the United Network of Organ Sharing database.** *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation*
Kohsaka, S. n., Shudo, Y. n., Wang, H. n., Lingala, B. n., Kawana, M. n., Woo, Y. J.
2020
- **Quadrupling the N95 Supply during the COVID-19 Crisis with an Innovative 3D-Printed Mask Adaptor.** *Healthcare (Basel, Switzerland)*
Imbrie-Moore, A. M., Park, M. H., Zhu, Y. n., Paulsen, M. J., Wang, H. n., Woo, Y. J.
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